00038336

BOMBAY BRANCH
OF THE
ROYAL ASIATIC SOCIETY.
TOWN HALL, BOMBAY.

Digitized with financial assistance from the
Government of Maharashtra
on 15 March, 2016

PLAN
of Summer-Hill and Lewis-Pond Creeks.

SECTION OF CREEK

J. Netherclift & Son, Lithog

AUSTRALIA AS IT IS:

ITS SETTLEMENTS, FARMS,

AND

GOLD FIELDS.

38336

BY F. LANCELOTT, ESQ.

MINERALOGICAL SURVEYOR IN THE AUSTRALIAN COLONIES.

IN TWO VOLUMES.

VOL. II.

LONDON:

COLBURN AND CO., PUBLISHERS,

GREAT MARLBOROUGH STREET.

1852.

919.41
Lan/Aus
38336

LONDON:
Printed by Schulze and Co., 13, Poland Street.

CONTENTS

OF

THE SECOND VOLUME.

CHAPTER I.

Page

Bell's Point—The diggings in general—The yield of gold—Range of gold-fields 1

CHAPTER II.

Geology of the gold-fields—Situation of deposits in both hemispheres 11

CHAPTER III.

Mode of working for gold—The cradle—Methods of assay 28

CHAPTER IV.

Page

Colony of Victoria — Geelong — Aspect of the country—Melbourne—Character of the population—Bush-fires—Religious denominations—Revenue. 46

CHAPTER V.

Melbourne—Demoralized condition of the citizens —Australian pic-nics—Fashions and dress—Dwellings—Meat, vegetables and fruit—Supplies—Commerce—Manners and habits of the people 71

CHAPTER VI.

The gold-fields of Victoria—Description of the diggings—Drought—Rates of wages and prices 119

CHAPTER VII.

Qualifications required in a settler — Advice to emigrants—Requisites for the voyage . . . 144

CHAPTER VIII.

Colony of South Australia—Discoveries of Captain Sturt and Barker—The mountain ranges—Character of the formations—Rivers, lakes, and creeks . . . . . 16[illegible]

CHAPTER IX.

Page
Adelaide—The aborigines—The port—The counties of South Australia 194

CHAPTER X.

Geology and Mineralogy 258

CHAPTER XI.

Capabilities of the soil—The Burra-Burra mine—The mines in general 292

AUSTRALIA AS IT IS.

CHAPTER I.

Bell's Point—The diggings in general—The yield of gold—Range of gold-fields.

HAVING briefly detailed the discovery and progress of the New South Wales gold-fields, we will now glance at the chief localities where, up to the present time, gold has been discovered in sufficient quantities to pay for working.

Bell's Point.—These diggings are on the river Bell and some of its tributary creeks. The river itself borders the western portion of

the county of Wellington, and falls into the Macquarie in Wellington valley. In November, 1851, there were about 300 persons at these mines. All who laboured were doing well, and some were realizing fortunes.

Braidwood. — These diggings are in the county of St. Vincent, 16 miles from the town of Braidwood. Arabian Creek, a tributary of the Duah and the Bronlee Mounyas, is the chief seat of the mines, although gold has also been found in considerable quantities on the Little river, at Major's Creek and Bell's Creek, and small nuggets have been found at Mount Ebrington, six miles from Araluen. The gold is nuggetty, and often found in the schist rocks. The deposits are irregular in quantity, but all who work the cradle get more or less.

Bungonia, or Shoalhaven.—These gold mines are in the vicinity of the Shoalhaven river, in Argyle county, about 125 miles from Sydney.

Carraway Flat and Black Swamp are quietly worked but productive mines, in the vicinity of Lake George, in Murray county.

Hanging Rock.—These diggings are progressing on a small creek below the precipitous part of the Liverpool range, known as the Hanging Rock. This creek flows into Dungowan Creek, a tributary of the Peel. Several other streams that flow into the Peel in this neighbourhood have lately been examined, and found to be auriferous.

Louisa Creek, 30 miles from Mudgee, is situate on a flat table-land, somewhat marshy, and abounding in quartz boulders and pebbles, The auriferous soil is nuggetty, and but 9 inches beneath the surface.

Major's Creek are productive diggings, in the vicinity of the Shoalhaven river. Many of the miners are reported to procure from 2 to 3 oz. of gold a day per man.

Maneero.—These new diggings are on the Snowey river, and some of its tributaries. They promise to be highly remunerative.

Meroo, or World's End.—These diggings are on the Meroo Creek, 18 miles southward of Mudgee. The gold is found in an alluvial

deposit, from 4 to 6 inches thick, lying upon a bed of yellow greasy clay. In and below the clay no gold occurs. The gold of the table-land through which the Meroo flows, instead of being in scales, like the Turon gold, or in water-worn nuggets, like that of Ophir, is in nuggets of all sizes, from 4 oz. to a pin's-head, with exactly the appearance of gold broken carefully out of the quartz. The diggers have been earning on the average 30*s*. a day per man.

Mookerra.—This auriferous creek is a tributary of the Macquarie, in Wellington county. Although productive, it is frequently so dry that the diggers have to cart the earth several miles in order to obtain water to wash out the gold.

Moruya.—These diggings are on the banks of a river of the same name, which extends along the western boundary of St. Vincent's county. They are situate about 20 miles from Bateman's Bay, and 100 from Sydney.

Oakey Creek.—A stream in the Liverpool

Plains' district, whose banks are so highly auriferous, that a man in six days found 8 oz. of gold in seme of the miners' refuse earth.

Ophir includes the Summer Hill Creek, Lewis Ponds, and Frederick's Valley diggings in the county of Bathurst, and excepting those of the Turon, are the richest gold-fields in the colony. In Frederick's Valley lies Mr. Wentworth's estate of 6000 acres, all believed to be rich in gold. The land around is well watered, and exceedingly fertile. Basaltic rock is abundant, and, in many places, the soil is a mixture of red clay and quartz. The roads here may truly be said to be paved with gold, as the rocks with which they are metalled are auriferous. In Summer Hill Creek, with its mica-slate hills, its numerous quartz veins, and its broken bed and narrow tortuous course, the gold is massive in character, the dust being exceedingly coarse, in comparison with the Turon. The find, therefore, in this locality, although in the aggregate great, is uncertain. Nuggets, varying in size from a pea to a walnut are common,

fine dust is not met with, and seales but seldom occur.

Parshish.—These diggings are in the vicinity of the Abercombrie river, about 50 miles to the southward of the town of Bathurst.

Tueena.—These diggings are about 60 miles from Goulburn; and the miners are making great gains. In some instances, a single individual has obtained £100 in a week.

Turon.—This is the principal gold-field at present discovered in the province. The river itself takes its rise near Hartley, and after a course of about 100 miles through the counties of Roxburgh and Wellington, flows into the Macquarie. During its course it receives several tributary creeks, and most of these are auriferous. Little Oakey Creek, near the head of the Turon, at a place called Golden Point, and portions of Cunningham's Creek have yielded an immense store of the golden treasure. The diggings in the valley of the Turon, are very numerous, and extend all along the stream for a distance of about 40 miles.

The geological formation of the Turon country is principally mica-slate, without much mica, and with but few quartz veins. The bed of the river is broad, level, not tortuous, and from 50 to 100 yards wide, so that, at flood time, the waters roll on in one continuous uninterrupted stream over a bed smooth and even as a high road. Hence it appears highly probable that the Turon gold, which in its general character is fine and rarely massive, is chiefly the product of the upper, unexplored, and broken sources of the Turon, where will be found the narrower steeper country, the multitudinous quartz veins, and the coarse nuggetty gold detached from its neighbouring matrix, too heavy to be carried down with the lighter particles with every flood towards the Macquarie.

Since the foregoing was written, the country near the sources of the Turon has been partially examined, and gold greater in quantity and larger in size been found. In one day three men obtained 10 lbs. weight of gold in small

nuggets, weighing about an ounce each; and the gold generally, instead of being fine and scaly, as is the case lower down the stream, occurs in nuggets of from a pennyweight to an ounce each, and these are very plentiful.

Mr. Commissioner Hardy, in his report to the government, states: "The majority of the men on the Turon earn from 15*s*. to £1 each per day. I know a large number of men who earn £2 each per day; and there is equally profitable digging-ground on this river, now unoccupied, for many thousands. In fact, I can at present see no limit to the number of persons that may be employed; for I have ascertained, by personal observation, that the numerous creeks, many of them 10 or 15 miles long, that fall into the Turon, produce gold at the rate of 10*s*. to each man per day. Three men in that locality have in this, and the three preceding days, obtained 10 lbs. weight of gold (about £400) in pieces not exceeding 1 oz. in weight. The average earnings of the 200 men, who took out licenses on these creeks, is not less than £1 a day each.

Wimburndale Creek, a tributary of the Macquarie, near the Turon, contains considerable quantities of gold, chiefly embedded in quartz. The miners working in the cliffs or slopes of the creek are doing well, although much of the quartz which they cast aside as worthless would, on being crushed and amalgamated by machinery, yield an abundance of the precious metal.

Beside the above localities, gold has been found in numerous other spots. Indeed, advices from Sydney are continually arriving of the discovery of fresh, and to all appearances exhaustless gold-fields.

In February, 1852, the Rev. Mr. Clarke returned to Sydney from an inspecting tour on behalf of the government, and he announced the discovery of gold in granite of a peculiar character in the counties of St. Vincent, Argyle, Murray, Dampier, Wallace, Wellesley, and beyond the boundary of Victoria, as well as in the basins of Shoalhaven, Murrumbidgee, the Hume, and the Snowy rivers.

Gold has also recently been discovered to the northward of Sydney. It occurs at Tamworth, near the Peel river, at the rivers Cockburn and Macdonald, at Swamp Oak. Creek, on the eastern side of the range near Walcha, in New England district, on the river Brisbane, about 50 miles from the town of that name, and in numerous other places. In fact, gold has already been found to exist in more or less abundance throughout the range of mountains extending upwards of 700 miles from the southern limits of the province to Moreton Bay district in the north.

CHAPTER II.

Geology of the gold-fields—Situation of deposits in both hemispheres.

In prospecting—which is looking for a place where the gold is likely to be plentiful—success can only be expected from the exercise of skill, combined with a practical knowledge of the geology of gold. It will therefore be well to glance at the circumstances under which the precious metal is obtained, both in the northern hemisphere, and in the Australian colonies.

All gold-bearing rocks belong to the Plutonic or primary series. The Silurian quartzites, and

schist, or slaty rocks, are most prolific in the metal, although granite, seinite, porphyry, and even limestone, are at times gold-bearing. Gold is one of the most universally distributed metals in rocks of the above class. There is scarcely a river of any volume upon the face of the globe in which it does not exist in small quantities, the sand and gravel of which will pay for the washing, provided they yield at least 24 grains per 112 lbs. Gold is always found in dust, grains, thin leaves, or scales, or lumps; and although occasionally met with mechanically combined with platinum, silver, or other allied metals, it has never been found as some are, chemically combined with other elements. The sources of gold are two-fold. The metal either occurs in certain rocks, or has been spread over the surface of the hills and their bases, probably by the violent action of water, which, in a former period in the earth's history, has broken up and dispersed the fragmentary ruins of the upper beds of rock over the surface of the flatter regions below. Such

is the history of alluvial gold beds, whether in Russia, California, Australia, or elsewhere.

In the mines of Russia, gold is plentiful where porphyry, greenstone, and serpentine are found in the older limestone. In such cases it is often associated with platinum and chromate of iron. It is also frequently found in lumps between mica-slate and limestone, and in grains in sand and coarse gravelly quartz pebbles. Lumps resembling the nuggets of the Australian mines, are frequently found in boulders of quartz, as is the case in Australia.

The gold of Brazil occurs in a disintegration of granite, gneiss, horn-blind, and mica. As in Australia, it exists in scales, or lumps, mingled with the sand and gravel of the rivers, and also in grains in alluvial loams.

In Peru, some of the iron and copper ores contain large quantities of gold, and nuggets are frequently found in the bottom of gullies that have been filled up by the accumulation of sand. This is also the case in Australia.

In Europe flakes of gold, accompanied by titaniferous iron, sometimes occur at some distance below a sand or gravel bank. It thus occurs on the banks of the Rhine. In England it is sometimes met with in small scales, in the tin streams of Cornwall and other places. The Spanish mines are mostly composed of ferruginous sand. Few of the European mines will pay for working.

The gold of Africa consists of dust and grain, washed from the sands in the river-beds. There, however, is every reason for supposing, that there, as elsewhere, matrix gold occurs, and but for the want of intelligence or industry on the part of the miners, it would have been discovered years back.

The gold-bearing regions of California closely resemble in their geological features those of Eastern Australia. The Cordilleras, as in Australia, stretch along the coast in a meridional direction. They are comprised chiefly of granite, schist, and metamorphic limestone, traversed by veins of auriferous quartz.

And it is from the detritus of these and similar rocks, which form the beds of the streams in the valley of the Sacramento, that the diggers obtain their rich harvest.

In a work like the present, it is impossible to give more than a brief and a very general outline of the geological formation of the gold districts of Australia. Quartz and granite are the only rocks in which gold occurs in the matrix; and when not found in either of these minerals, it may fairly be presumed that it has been removed from its original position by the chemical decomposition of the matrix itself, or by some violent convulsion of nature, or perhaps by both of these causes. In some places quartz-rock overlaps granite, and at Ophir and other places clay-slate occurs, surmounted by basalt, and traversed by veins of quartz. At the Turon the formation is either porphyry, or clay, or mica-slate, with but few quartz veins. The general dip of the strata is to the northward, sometimes inclining to the east, and sometimes to the west. The slate

laminæ are in many places perpendicular, and striking upwards, as they do, present jagged edges and joints, which have opened under the influence of the atmosphere, and which catch the gold that has been detached by the breaking up of the quartz veins, and which has, in the gradual wearing down of the hills, been carried over them. It is from these slaty fissures that the rich nuggets are usually obtained, and although the gold so formed is generally tightly jammed between the joints of the slate, it is always abraided and battered, and bears undoubted evidence of being water-worn. Where slaty-rock forms the basin of an auriferous stream, large nuggets are frequently found beneath the detritus, embedded in the rock itself. In Australia, gold is rarely found in the sand, as it sinks to the soil beneath it: gravel, however, being a detritus of quartz, is frequently gold-bearing. When auriferous quartz veins traverse granite, the granite itself is generally gold-bearing. Schist resting on granite is frequently auriferous, the gold being

thinly scattered in the clayey rock. In many places the gold is embedded in clay itself. Large nuggets frequently occur in cellular or honeycombed quartz, which from the presence of iron have a rusty-brown appearance.

With regard to the original source of the gold in the alluvia, it may be said generally, that contrary to the usual law of metals, it is only the upper and not the lower portions of veins that are prolific, and therefore mountains of only a moderate elevation are the most fertile sources of gold. In Russia, the gold-fields at the base of hills, not exceeding 1500 feet elevation, are much richer than those at the base of mountains rising to 5000 feet and upwards. Many auriferous quartz veins exhibit no appearance of gold, even under a powerful microscope; and yet, when crushed and amalgamated, yield at a rate of more than £500 per ton of quartz operated on.

It was Humboldt who first remarked that gold is a constant ingredient in meridian-directed mountains. The Ural, the Californian and the

Australian Cordilleras, have verified the assertion ; that is, although there are many slight deflections and variations, especially in Australia, where there are auriferous spurs trending northward and southward, still the main ridges all lie in the direction of the meridian.

There is another fact worthy of mention. If we look at the globe, we shall find that in the longitude of about 149° or 150° E. extends the middle or meridian chain of Australia, paralleled by similar chains having similar axes in South and in Western Australia, where gold will probably be found in great abundance. Exactly 90° from the main Australian chain, occurs the auriferous Ural in 60° east; and exactly 90° from the same chain occur the north and south auriferous mountains of California in 120° degrees west. The fourth quadranted meridian falls along the Atlantic between Brazil and Africa, both auriferous regions. In three of these meridians the earth has been fissured, and igneous rocks have pierced and transmuted elevated schisture beds.

That the gold meridians are in many respects identical in character and extent, may be further proved by the fact, that in Russia the gold alluvium is found mingled with the bones of mammoths; in California gigantic bones occur in the auriferous detritus, and in Australia, the unsepulchered relics of the gigantic diprotodom and nototherium occur in limestone caverns, and in the auriferous rocks and detritus. Hence it is evident that the gold alluvia in Russia, California, and Australia, are of the same epoch as that which has filled the cavern with the bones of extinct animals; that this is therefore, comparatively, a recent geological period, but one which has passed away.

Again, from geological data, it may be fairly inferred that the axis and flanks of the Australian Cordillera are of the same geological epoch, and have undergone similar transmuting influences, with the axis and flanks of the Ural. In constituents, in age, in almost every phenomenon, and in elevation above the sea, they are identical; while the Australian

ranges stand as a wall between the sea and a desert, just as the Ural chain extends between what was sea long after Australia became dry land, and the desert of Siberia. We may, therefore, predict of Australia what is now geological history in Russia, with the addition that Australian mines will prove, ultimately, not only the richer, but by far the more extensive of the two.

The mines of Russia, although skilfully worked, produce but about £3,000,000 per year, while, on the contrary, the already known and carelessly-wrought gold-fields of Australia have produced this amount in a few months. Indeed, there appears no limit to the quantity of gold that may be obtained in Australia with the aids of science and machinery.

As in Europe and America, copper, lead, iron, and other metals, abound in the schist and quartzites of Australia, especially in the southern portion of the ranges. Rubies, emeralds, garnets, jaspers, zeolites, amethysts, &c., in numerous varieties—many very beautiful—occur in

various localities; but the baser metals and the valuable stones will of course not be much sought for, or marked, whilst gold is so plentiful.

Gold, in its original matrix in the rocks, is in some places distributed in scales, and in others it branches out in veins or lodes, or exists in lumps, varying from a few grains to above a hundred pounds in weight. In some cases, as before observed, it is spread out in particles so minute as to be invisible under a powerful microscope. The rocks cannot be effectually worked until crushing machinery is established; it is therefore on the auriferous detritus that the diggers are now operating so successfully. The amount of this detritus is enormous, and it is the business of the prospector to seek out those places for working where nature, in accordance with her immutable laws, has deposited the gold most abundantly. In doing this, he should keep in mind that the source of the auriferous deposit is the gold-bearing rocks in the mountain ranges, and not the rivers, and that in the floodings the gold, from its great gravity, would

sink, when in many cases the rocky and earthy portions of the detritus would be carried with the stream a considerable distance onwards. Thus, a long sloping bend (called a bar by the Australian diggers), or a flat or sharp elbow, after a sudden slope in the river's bed, other circumstances being also favourable, would be found a good locality. The same may be said of extra-deep places; and as the force of the current would carry the gold some distance down the stream, the richest situations usually are at a moderate distance from the gold-bearing mountains, and from the head of the water-course. Indeed, if gold exists in the stream, it is almost sure to be found in one or the other of these localities; but it frequently lays some depth below the surface, so that the perseverance needful to its discovery is so great, that at times a spot that has been worked unsuccessfully and deserted by one party, will be excavated by another party to the depth of only a foot lower, and a rich deposit be found.

The section and plan of the workings at

Summer Hill Creek and Lewis Ponds, forming the frontispiece of this volume, will convey an idea of the nature of the deposits. At each of the points marked X in the section, the creek makes a sudden bend. The part X at such bend is a long slope, with a nearly perpendicular bluff opposite, on the other side of the creek. These slopes appear to have been formed by the reverberation of the stream from the opposite perpendicular bluff; a d all such slopes are crowded with diggers, whose average gains are £1 per day each man. The portions marked X in the plan are favourable portions. The barren portions are those between the X's.

Having discovered a spot in the vicinity of a stream where gold probably exists, you wash the soil in a tin dish, carefully pouring away the mud, and leaving only the heavier portion in the pan. This operation you perform several times, after which the residue is carefully taken out, dried, and examined. On no gold presenting itself to the eye, the residue should be

amalgamated with a little quicksilver, when, if gold is present, the mass will become a solid part. On being satisfied that the spot is worth working, you apply to the authorities for a license; as no one is permitted to search for gold, or occupy ground for trading purposes, at the diggings, otherwise than in accordance with the following government regulations.

All persons digging or searching for gold must take out a license, for which the fee is £1 10*s.* per month, paid in advance. All gold procured unlawfully is liable to seizure.

Licenses are not granted to persons absent from hired service. Each person holding a gold digging license is entitled to a *claim* to work unoccupied ground, to be marked out as follows:

1. Fifteen feet frontage on either side of a river or main creek.

2. Twenty feet of the bed of a tributary to a river or main creek, extending across its whole breadth.

3. Sixty feet of the bed of a ravine or water-course.

4. Twenty feet square of table-land or river flats.

These claims to be voided by the claimant not working the ground within ten days of his acceptance of the same. Persons found working on public or private land without a license to pay double fee. Licenses to be cancelled on the conviction of the holders of selling fermented liquors unlawfully, or of any riotous or disorderly conduct. Disputes as to claims to be settled by the Commissioners. Licenses to dig on private lands to be granted only to the proprietors, or their authorized agents. The fee for such license to be 15*s.* per month. Persons may drain ponds or water-holes to obtain alluvial gold by paying as many license fees as shall be proportionate to the area of the water-hole, calculating 25 feet square for each individual license. Licenses for working alluvial gold are transferable. No one to construct dams and reservoirs for the purpose of gold washing, without the Commissioners' permission has been previously obtained. Any person

working auriferous quartz veins to obtain matrix gold, to enter into a bond, binding himself and two securities in the sum of £2000 to pay a royalty of 10 per cent on all gold obtained to a government officer, who shall reside on the spot, and have access to the buildings and premises, and to all books and accounts connected with the production of gold. All buildings and machinery erected on the land to be considered as an additional security for the performance of the bond. The claim to consist of half a mile of, and in the course of the vein, with 50 yards on each side of the vein for building, &c.,i ncluding the right to cut timber, and to use water from adjacent Crown lands. The duration of the claim to be three years, which may be extended further under instructions from Her Majesty's government. If the conditions of the bond have been fulfilled, the parties may, at the termination of their tenure, remove all buildings, machinery, &c., from the claim. The claim to be forfeited by neglecting to pay the prescribed royalty, by not

employing thereon 20 persons, or machinery, calculating one horse-power to 7 men, within six months after the application for the claim has been accepted, or by ceasing to employ that number of persons on the works for one month thereafter; by employing unlicensed gold-workers, by obstructing the officer in the performance of his duty, or by otherwise violating the terms of the land. Land already occupied for alluvial gold-washing, not to be worked for gold in the matrix.

Persons working auriferous veins on their own lands, to pay a royalty of but 5 per cent, to employ any number of hands they please, and to work when they please. In all else, to be subject to the regulations for working matrix-gold on Crown lands. Persons occupying portions of Crown land at the gold-fields for trading purposes, to pay 30*s*. per month in advance.

CHAPTER III.

Mode of working for gold—The cradle—Methods of assay.

THE alluvial deposits are worked by washing the soil collected either from the surface, from a deep pit, or tunnel, in the bank of a river, or water-hole, which has previously been drained by dams, or other artificial means. Crushing and stamping the rocks, and driving shafts, galleries, and levels on lodes of the ore, as in ordinary mining operations, have not yet been resorted to in Australia.

The most simple, but the least lucrative method of washing consists in digging up the

auriferous soil and washing it in a pan, or milk-dish. Pan-washing, as it is called, is only practised by those who, from poverty or eccentricity, work single-handed. An expert hand can gather and wash a pailful every ten minutes; and the place that does not yield about 10*s.* per day, is considered not worth working by that process.

But pan-washing is but little practised, as the diggers find it more lucrative to work in parties of from four to eight persons each, and to wash the soil in a cradle, a simple apparatus presently to be described. A collection of the following tools are indispensable to a cradling-party. Spades, crow-bars, pick-axes, with one end pointed and the other end square, shovels, iron wedges, falling-axe, tube, tin or iron buckets, tin dippers, tin or iron pans like milk dishes, cradle, gardeners' trowels, maul, and a cross-cut saw. It is also necessary to be provided with a change of coarse wearing apparel, a good stock of bed-clothes, a roomy tent, and the following cooking utensils: viz., a camp oven, an iron pot, and

a kettle, several tin quart mugs, plates, and a few knives, forks, &c.

All the above can be bought in the neighbourhood of the diggings, at a trifling advance on the London prices: therefore there is no necessity to take them from England, although, if your means are not limited, it might be well to carry out with you a substantial tent, and a few thick blankets; the former will be pleasant by day, the latter most comfortable on cold nights, which, in Australia, are of frequent occurrence. Provisions can be purchased at stores at the diggings at an advance of from 50 to 100 per cent on Sydney prices.

Most digging parties buy a horse and dray, or cart, to convey their tools, &c., from the metropolis to the diggings; but persons who have not the means to make such a purchase send their stores by a carrier, they themselves proceeding on foot in the wake of the vehicle.

In choosing partners, great discrimination is requisite; in fact, the success or failure of each

cradling party materially depends on the amount of active co-operation and unanimity of feeling existing between them. Do not take up with any fool who fancies he would find a hundred weight of gold at one haul; the men you want are stout, healthy, energetic, enduring fellows, who are determined to work, and work hard, for ounces. Have nothing to do with a peevish man, shun a gambler, and take no one whom you do not believe you could trust with untold gold without witnesses, for every partner must be so trusted. Also avoid shepherds and stock-keepers, and professional men, clerks, and shop-keepers; for the former, although used to roughing it, have an unconquerable antipathy to continuous labour, and the latter are both mentally and bodily unfitted for so hard and precarious a life. The best diggers are farm-labourers, excavators, sailors, brickmakers, and miners.

Having chosen partners, and had a deed of partnership carefully drawn up and signed, you next get the tent fixed. Secure it firmly to

stakes well rammed in the ground, as heavy squalls are of frequent occurrence. Place it neither in a low gully, nor on the top of a high spur, but about half-way up a gentle slope, as you have the breeze by day and avoid the night mists. The beds should be raised a foot above the ground, so as to completely break the communication between the body and the earth. For this purpose, rough bedsteads can easily be formed from either the bark or the branches of the eucalyptus trees. The other furniture of the tent should consist of simply a few boxes, which answer all the purposes of chairs, tables, wardrobes, &c. You should live well both as to eating and sleeping, and always mess with your partners, as slight dissensions are commonly talked away at meals. Avoid excitement; vehement exultation at good fortune, or extreme depression from want of success, wear men out faster than labour. Make up your mind to a certain result, and never mind single days, and still less single cradles.

It is usual to appoint one trustworthy person

to take charge of the gold. One person minds the tent, cooks, &c. One or more men dig; sometimes several hands are engaged carrying the auriferous soil from the digging to the washing-place, and one or more hands wash the gold from the soil in a cradle, which is so simple a contrivance that any ingenious person could make one. The cradle in general use is made of wood, and in size and form resembles a child's cradle. It is about 6 feet long, stands on rockers, and into the head is fitted a box, the bottom of which is a grating or sieve of coarse wire-work, or sheet-iron, pierced full of holes $\frac{1}{2}$ of an inch in diameter. Three bars or ridges, about $\frac{3}{8}$ of an inch in height, extend across the inside of the bottom of the cradle, one beneath the centre of the sieve, one near the extreme end, and one midway between the two. An upright bar of wood is fastened to the middle of one of the sides of the cradle. By means of this bar, the rocker sets violently rocking the cradle with one hand, and with the other pouring water on the soil, which has been

thrown on the sieve, and as the gold and sand are separated from the stones and washed down, the current carries the bulk of the sand over the bars, while the gold mixed with a pasty soil, is intercepted, the lower bar arresting any that, by an awkward shake, gets over the upper ones. When in use, the cradle is placed in a slanting position, with the sieve end higher than the others. Twice, or oftener, in the day the paste is cleared out from the bottom of the cradle, and either dried in the sun and the sand blown away, or washed in a milk dish, the grains of gold, by their superior gravity, remaining at the bottom.

Some parties use a cradle about as large again as the one described. This, called a "Long Tom," employs one hand to feed it, one to pour on water, break the lumps, and pick out large stones, and another to keep it in motion.

Mr. Rudder, formerly in California, but now in New South Wales, advises that the cradle should be about 4 feet in length, and 20

inches in width, with a slide of 2 feet in length under the hopper, so that the soil may be made to pass over an inclined plane, of at least 6 feet: thus, 2 feet from the slide, and 4 feet from the bottom of the rocker. No bars are requisite on a machine so constructed, except one at the extremity. The inclination of the rocker, when set to work, should not exceed half an inch in a foot; and the water, instead of being dashed into the riddle in large quantities, and with great violence, should be well distributed over the soil, and poured in with force enough only to cause it to flow freely, but gently, through the machine. By adopting this plan, the gold will traverse gradually over the first inclined plane (the slide), and drop on to the second (the rocker bottom), down which it will pass till impeded by the small stones and sand retained by the bar.

The rocking motion, by the aid of the water, throws the gold to the centre of the machine. When ten buckets have been washed through in this way (if the work is properly performed),

on pouring water gently through the machine, keeping up an easy rocking motion for a very short time, and then discontinuing the operation, a cone will be found to be formed on the bottom, and the materials ranked in the following order, commencing at the lowest part of the inclination, which will form the base of the cone: 1st, small stones and sand; 2nd, emery; 3rd, gold; the apex of the cone being fine gold. The order observed by bodies when influenced by the attraction of gravitation being exactly reversed. The water first carrying the lightest particle before it to the extremity of the machine, and the heaviest being left the last and highest.

It is also essential, before rejecting the washed material left on the inclined plane, that it be brought up to the top of the rocker, and water poured gently down the first inclined board (slide), and re-rocked, so as to obtain any portions of gold which, from their size or shape, have opposed a sufficient surface to the water to enable that element to carry it too much below

the apex of the cone. When the order described prevails, the machine and rocking may be said to be—the one accurately made, and the other performed. In this way the finest gold may be procured with very little, if any loss.

In the absence of more complicated contrivances, the following mode of separating the gold from the soil is at once simple and efficacious: Make a wooden gutter, a foot in breadth, and 10 or more feet in length. Place it in a slightly inclined position, so that the water will easily run off. Reduce the soil to be washed to a thick pasty consistence, then place it in the upper end of the gutter. Pour on it a gentle stream of water, and if the operation is well managed, all will be washed away except the gold and the heavy stones.

Another equally good and simple method, is to place in the river a shallow tub, with its top a few inches below the water's surface. Into this tub the auriferous soil should be dropped, and the whole kept stirring, when the running

stream will carry away the lighter particles, and leave the gold and large stones behind.

Besides the above, there are quicksilver machines of varied construction, to be bought in London, all more or less excellent in their way, and doubtless well worthy of the notice of the wealthy emigrant. But as the man of limited means should go out unincumbered with heavy, or cumbrous articles, his wiser plan would be, if he require it, to make his own quicksilver machine at the diggings, or on board ship during the voyage. This, with wood, nails, ordinary tools, and ingenuity, he can do in about a day. The following is a description of one by a Californian miner: "This machine is about 6 feet long, by about 18 inches broad, having a plate of iron the whole length, with $\frac{3}{8}$-inch holes bored or punched in it about 1 inch from each other. Below this is the rifle-box, also the whole length, with 8 or 9 partitions or rifles, into each of which about a pound and a half or two pounds of quicksilver

is placed. The earth, stones, &c., are thrown upon the iron plate, through which the earth passes with the gold into the rifles below, while the stones go off at the lower end; when the machine is in motion the quicksilver traverses through the dirt and amalgamates with the gold, while the dirt and pebbles are washed out of the machine by the force of the water, leaving the silver behind containing the gold.

"At night the whole of the amalgam is taken out, washed clear of the earth, emery, &c., and then strained through a leather bag, by which it is reduced to a thick paste, from which the quicksilver is separated by distillation in a retort, leaving the gold in one solid piece.

"The rocker must be worked regularly and steadily, not even stopping for an instant unless when cleaning the box; and when properly managed, it is very profitable. On the other hand, if it is not conducted properly, not only will there be no gold saved, but most likely a great portion of the silver will be lost; as

much as 50 lbs. having been lost by mismanagement in one week's labour. To do it justice, eight men are required for one machine: two in the pit digging, two bringing the dirt in wheelbarrows, one man rocking, one pumping, one supplying the machine, and one taking or throwing away the stones as they come out."

At the diggings, gold-dust and nuggets are the chief circulating medium. The Commissioner, the store-keeper, the medical practitioner, the postman, the butcher, the blacksmith, the travelling pedlar, and the carrier, all have their weights and scales for weighing the virgin gold tendered in payment. Several cases of false weights and balances have been detected at the gold-fields; it is, therefore, proper that each party of diggers should have for their own use and satisfaction, a set of well-made, and nicely adjusted gold scales and weights, which may be bought either in England or in Australia for a few shillings. It may be well to state that the

colonists, following the example of the mother country, barter their gold only by troy weight.

The very low price given by the tradespeople and others at the diggings (from £2 10*s*. to £3 per oz.), for the gold, which, being finer than standard, is in this country worth upwards of £3 17*s*. 10½*d* per oz., prevents the more careful miners from disposing of the precious metal to persons at the diggings, except to provide themselves with ordinary necessaries. Indeed, in Australia, gold is so plentiful in the market, and its state of fineness so difficult to be obtained, that all who can, ship it to England on their own account; and the Sydney merchants are now realizing more by this than by any other investment. The miner, who is the great sufferer by this state of things, should, before disposing of his gold to the not too scrupulous colonial merchant, assay a portion of it, and ascertain its true value. This he could readily do, as assaying is so simple an art that any one

after a little practice can perform the operation, which may be thus briefly detailed.

The assay weights are made with the nicest regard to precision. They are technically termed carats, four grains going to the carat, and 24 carats to the pound troy; and as there are 12 grains troy to every 24 carats, or 1 grain troy to every 2 carats, an assay might readily be made with the troy weights only.

Presuming then that the assayer is about performing the operation after the method employed in the public assay offices in England, he thus proceeds:—If, from the appearance of the gold, he judges it to be of 18 carats fineness, he then adds to 24 carats, or 12 actual grains of the gold, 36 carats, or 18 grains troy, of the finest silver, being exactly double the weight of the presumed fineness of the gold. The gold and silver, which together will weigh 30 grains troy, represented by 60 carats, is next wrapped up in a piece of thinly flatted lead, and the whole moulded into shape in an ordinary bullet-mould,

and placed in a cupel, a small vessel made of burnt bone-ash, and which can be readily purchased in England. The cupel is then placed in a furnace, and there left for about twenty-five minutes (the exact time can only be determined by experience), when it is taken out, and if all has proceeded well, the lead will have descended into the cupel, carrying with it any of the baser metals that were present, and leaving a button of pure gold and silver. This button is taken out of the cupel, and hammered or rolled out, until it is about as thin as writing paper, after which it is immersed in diluted nitric acid. In a short time the acid will have dissolved and precipitated the silver; and the gold, which from not being acted on by the acid, retains its solidity, can with a blow-pipe be converted into a button of pure fine gold. To complete the process, the operator now weighs the button. If it weigh 22 carats, then the gold of which it forms a sample is said to be standard, or of 22 carat fineness. If, as is generally the case with

Australian gold, it weighs more, then according to its increased weight it is so much above the standard fineness.

In order to conduct the assay with efficacy, the operator must bear in mind that the use of the lead is to carry away whatever base metals are mixed with the gold; that silver always exists in more or less abundance in native gold, and that in the operation in the cupel, only the baser metals are extracted. Consequently a large quantity of fine silver must be added, otherwise the gold which is not acted upon by the acid, would protect the silver from the acid's influence too. But, be it remembered, that if too large a quantity of silver is used, then the gold is precipitated in a small black powder, which it is difficult to collect. When the about proportions are used, and the operation is otherwise rightly conducted, the assayed gold is of a malleable texture, and of a rich brown colour, and quite pure. By carefully attending to the above simple explanations, every Austra-

lian miner, who possesses the necessary apparatus, may become his own assayer.

There are other methods of assaying, but as they are less certain in their result than the method of cupellation here detailed, they must from want of space be passed over.

CHAPTER IV.

Colony of Victoria—Geelong—Aspect of the country—Melbourne—Character of the population—Bush-fires—Religious denominations—Revenue.

THE colony of Victoria, formerly called Port Philip from the time of its settlement to 1850, formed a part of New South Wales. It now enjoys its own separate government. Its coast and principal harbours were explored in 1802, by Lieutenant Murray, who commanded H.M. brig 'Nelson,' and a few weeks afterwards by Captain Flinders, in H.M.S. 'Investigator.' In 1804, Captain Collins, who had been sent from England to found a penal settle-

ment on the southern coast of Australia, landed with a fleet of convicts at Point Nepean, the eastern head of the entrance to the fine haven named Port Philip. But as both he and Mr. Grimes, the Surveyor-general of New South Wales, who had been dispatched from Sydney to explore the country, failed to discover the Yarra Yarra, and obtained fresh water only by sinking wells, the station after a short period was abandoned. The convicts, except several that had escaped, were re-embarked, when the fleet sailed across Bass's Strait, and the party finally landed on the shores of the Derwent River in Van Diemen's Land, and founded the prosperous settlement of Hobart Town.

In 1824, Messrs. Hovell and Hume made an overland journey from Appin in Cumberland county, New South Wales, and reached the site of what is now Geelong, on the western shore of Port Philip harbour. These adventurers gave so favourable an account of the country, that in 1826 the Governor of New South Wales sent a party of soldiers to take

possession of the territory forming the western shores of Port Philip, and endeavoured to form a settlement there. The project however failed, and in about two years the station was abandoned.

The colonists of Van Diemen's Land laid the foundation of a permanent settlement on the shores of Port Philip. Whaling and sealing establishments were formed on the northern shores of Bass's Strait, whence excursions were frequently made to the southern coast of Australia. The fishermen, impressed with the beauty and fertility of the land, reported its great pastoral capabilities to the Van Diemen's Land colonists, who about this period were straitened for pasturages, and annoyed at intelligence just received from the home government of an advance in the price of land. At that time there was no squatting system, and the land being considered too dear to repay for the outlay, if used only as grazing ground, the colonists resolved to occupy the country on the opposite side of the strait, where there was neither a

pound an acre system, nor a government of any kind to interfere with their doings.

Mr. J. Batman took the lead in this novel enterprise. In company with seven semi-civilised Sydney black fellows, he went over in May, 1835, to Port Philip—called Tranmor by the natives—and succeeded in purchasing a large tract of country from the Aborigines. He then recommended the Governor of Van Diemen's Land to annex the newly-discovered country to the old colony, and to duly ratify the treaty he had entered into with the Port Philip Aborigines; but this was declined, and Lord Glenelg, then Secretary of State for the Colonies, peremptorily refused to sanction his proceedings. Meanwhile, Messrs. Jackson, Fawkner, and other Van Diemen's Land colonists, embarked with their families and a considerable number of live stock, and in August, 1835, took up a position on the banks of the Yarra Yarra river. The intelligence of the fine Port Philip country got noised abroad, flocks were sent across the

straits by the Van Diemen's Land Association, and settlers poured in with their live stock from Launceston and from New South Wales. Buckley, a convict, who had run away from the expedition under Captain Collins, and since lived with the natives, assisted the new-comers to select and purchase additional tracts of fine country.

In this way the country on the Yarra Yarra speedily became occupied by settlers, with their flocks and herds. In 1836, when Sir Thomas Mitchell—who may be considered its practical, although not first discoverer—passed through the country, he found it already occupied with a few prosperous adventurers; and in the ensuing year, on the arrival of the Governor of New South Wales to inspect the place, it was found to contain 150 horses, 2500 cattle, 140,000 sheep, and about 500 colonists. The shepherd princes now had to bow to the strong arm of British law. The government took possession of the country, and established a settlement, first at

Geelong, and afterwards at Melbourne, the early settlers being permitted to only occupy the land where they fed their flocks. Thus, contrary to the usual course of colonization, this important colony, which, from its situation, fertility, and wealth, will hereafter be the greatest province in Australia, was established solely by the colonists, and that too in direct opposition to the mandates of Lord Glenelg, who, in his despatches to the Governor of New South Wales, peremptorily forbade the establishment of the settlement.

In 1839, Her Majesty's government created the colony of Port Philip a dependency of New South Wales, and appointed the present Governor, Mr. Latrobe, superintendent of the same, under the surveillance of the Governor of New South Wales. Such was the origin of this highly-favoured colony, which although established but 14 years, has grown into a great, thriving and populous territory; its gold-fields, the richest in the world, as much surpassing the New South Wales dig-

gings, as they do those of California and Russia.

Victoria comprises the extreme southern portion of Australia. It is bounded on the north-west by a line drawn from Cape Howe to the nearest source of the river Murray (which divides it from Auckland county and the Maneroo district in New South Wales); on the north by the Murray, to the South Australian frontier, in the meridian of 141° E.; on the west by the South Australian frontier; and on the south by Bass's Strait. It is about 500 miles broad, 250 miles wide, and 80,000 square miles, or 51,200,000 acres in superficial extent.

The physical aspect of the colony is very diversified, from the Alpine regions in the north-east, towering to the height of 6500 feet, to the low grassy plains in the south. The coast-line, although indented in some parts with picturesque bays, and well-sheltered capacious havens, is in general bluff, wild, and dangerous of approach. But notwithstanding its ridges

and mountain chains, Victoria contains a larger amount of accessible, fertile, well-watered land, than any of the other Australian provinces, and much of the scenery is very beautiful.

The territory is divided into the following twenty-three counties, which I have only space to designate by their names. The names are these: Howe, Combermere, Abinger, Bruce, Haddington, Douro, Bass, Mornington, Evelyn, Anglesey, Dalhousie, Bourke, Grant, Talbot, Grenville, Polworth, Heytesbury, Hampden, Ripon, Villiers, Normanby, Dundas, Follett.

Port Philip, the chief harbour of the province, is a capacious haven, from 20 to 60 miles broad, and embracing about 875 square miles of water. The entrance is about two miles wide, and narrowed by rocks and shoals. The heads are about 40 miles from the innermost anchorage. On the western side, the haven opens into an extensive navigable arm, called Geelong harbour, on the shore of which is the pretty township of Geelong. Vessels bound for Melbourne anchor at Hob-

son's Bay, the northern extremity of Port Philip, off William's Town, whence merchandise is conveyed in barges up the Yarra Yarra to Melbourne, a distance of about 8 miles.

Western Port, so named by Mr. Bar, who discovered it in 1789, lies to the east of Port Philip, and consists of two bays, the outer one being an extensive inlet formed by Philip Island, and the inner one a large circular basin about 18 miles across, with an island called French Island in the centre. The shores of the harbour are fertile and beautiful, but too thinly peopled for the haven—commodious and secure though it be—to attain speedily to commercial importance.

Portland Bay, so named, in honour of the Duke of Portland, by its discoverer, Lieutenant Grant, is the outlet of the extensive Portland Bay squatting district. It extends 26 miles from east to west, and 10 from north to south. Towards the western shore the anchorage is firm, and well sheltered from all but the south-easterly winds, which prevail in the summer,

and raise a tumbling sea. The other bays and harbours are too insignificant to demand notice in this work.

The streams of Victoria, like those of Australia generally, bear no resemblance to the fine rivers of Europe or America. They are few in number; and the Hume, or Upper Murray, and a portion of the Yarra Yarra excepted, all insignificant, and quite useless for purposes of inland navigation. Indeed, they are subject to such irregular supplies of water, that, in the rainy season, they frequently become rushing, roaring torrents, overflowing their beds, inundating the country around, and carrying all before them; and in summer they cease to flow, some becoming dry as high roads, and others only containing water, supplied as is supposed by springs in deep holes, or ill-shaped wells, that occur in irregular succession in their beds. Their course is singularly tortuous and irregular, many of them become lost in little reedy marshes, and the sea-mouth of those that enter the ocean is generally a shallow swamp,

or lagoon. The banks of the large streams are wild and uneven, here steep, precipitous and rocky; there gently sloping and sandy, or gravelly; and the beds which are in one place wide, and another narrow, are scattered over with ancient trees and rocks, that have evidently been carried down by the floods from the mountain heights.

The noble river known as the Murray, of which that portion above the junction of the Murrumbidgee is generally designated the Hume, or Upper Murray, is fully detailed in the chapter on South Australia. The other principal streams are the Ovens, Goulburn, and Mitta Mitta, all tributaries of the Upper Murray: also the Yarra Yarra, Loddon, Glenelg, Werribu, Barman, Hopkins, and about fifty other rivers and creeks. The lakes and lagoons are about a dozen in number, some fresh, and some salt.

Melbourne, the capital of Victoria, is built on an undulating ground, and extends for two miles along the Yarra Yarra. The streets are

wide and regular, and laid out at right angles. Many of the public buildings would not disgrace an English county town; and remembering that the young city was founded by Sir Richard Bourke so lately as 1837, one is astonished at the number and the massiveness of the wharves, stores, offices, and private dwellings. The churches of St. James and St. Peter are elegant structures, as also are the Presbyterian, Wesleyan, Independent, Congregational, and Roman Catholic places of worship. The court-house and gaol are substantial stone edifices, commanding a fine marine view. The Government offices, the Custom-house, and the Prince's bridge—which was built of stone at a cost of £15,000—over the Yarra Yarra, are all highly creditable to the young capital. The two colonial banks are elegant buildings, and the mechanics' institute, the hospitals, horse-bazaar, theatre, and other public edifices, are extensive and substantial, and chiefly built of colonial granite, or freestone.

The city is built partly of brick, partly of wood, and partly of stone. Most of the recently erected shops and stores are extensive, ornamental, and substantial stone or brick structures. The principal street, Collins Street, is composed on both sides of excellent warehouses, offices, and shops; but there is this peculiarity in Melbourne, that while one shop, with its massive stone front, its handsome plate-glass windows, extensive counters, and other superb appointments, would do no discredit to any European capital—another building, perhaps the adjoining one, is small, insignificant, and mean. The leading thoroughfares present an animated appearance, and are occasionally as crowded and full of bustle as those of London. The scene, however, is by no means cockneyfied; huge rough drays laden with produce, and drawn by four, six, or eight bullocks, together with carts, mail and other conveyances, tandems, gigs, and reckless settlers, seated on half-wild horses, throng the carriage-ways. The foot-paths, which are

none too even, are crowded with passengers, who have a particularly free and independent air; and the cracking of long whips, the bellowing of bullocks, mingled with the shouts and impious curses of the horsemen and teamsmen, and the eternal ding ding of the bells that announce the sales at the auction-marts, produce an indescribable din, which is quite un-English, but peculiar to the capitals of all the Australian provinces.

In Melbourne, neither churches nor chapels have attached burial-grounds. The dead are all interred in the commodious cemetery. The funeral rites are not conducted so decorously as in England. The followers wear no other badge of mourning than a crape hat-band; and although they proceed at a slow pace to the grave, and there listen to the solemn funeral service, and see the coffin deposited in the cold earth, the moment the ceremony is over, they all start off helter skelter—carts, chaises, and horsemen tearing away, some to the right, some to the left, just as their business or pleasure

demands. Even the conductor of the procession, who led on the cart in which the coffin was placed, drives off like the others, at a brisk pace, wherever he pleases. In fine, the inhabitants of Melbourne deem the obsequies ended, immediately the minister has concluded the burial service.

The city is the seat of a bishopric, and governed by a mayor, four aldermen, and twelve town-councillors. No regular system of lighting the city after dark has yet been adopted; but by a government regulation, a street lamp must be kept burning, from sun-down to sun-rise, over the door of each public-house; and these lamps are so numerous that, at night, the principal streets present all the appearance of well-lit thoroughfares. Educational institutions and public and mercantile associations abound. Of newspapers, five were printed before the gold discoveries; now, their number is diminished, the printers having gone to the diggings.

Geelong, the capital of Grant county, is

situate 45 miles from Melbourne, between a part of the western arm of Port Philip, named the Bay of Cario, and the river Barwon. The town is amply supplied with water, and well laid out over the waters of the port, so that great facilities are afforded for the loading and discharging of ships, as well as for communication with the interior. The harbour of Cario is, however, obstructed by a sand-bar, which must be cleared away before large vessels can near the shore. Geelong has some well built places of worship, and numerous excellent stores, warehouses, inns, and private dwellings. It supports one newspaper, and like most Australian towns has its race-grouuds.

The remaining towns are Portland, at Portland Bay, 250 miles from Melbourne; Alberton, the port of Gipp's Land, on the left bank of Albert river which flows into Port Albert; Brighton, the watering place of the capital, near Hobson's Bay, 6 miles from Melbourne; Irish Town, near Geelong, in Grant county; Ashley,

also, in Grant county; Brunswick, in Burke county; Belfast, at Port Fairy, in Normanby county; Richmond, on the Yarra Yarra, near Melbourne, and several newly-laid out townships in the vicinity of Melbourne.

Rural villages are scattered throughout the agricultural districts of Australia generally. Each village consists of a dozen or more rude cottages, where dwell those important personages, the village schoolmaster, who also acts as parson; the village doctor and apothecary; the village blacksmith and veterinary surgeon; the village cobbler, who tans his own leather; the village wheelwright and carpenter; the village storekeeper, who sells groceries, stationery, ironmongery, drapery, and in fact, every requisite, and lastly, the redoubtable Boniface, who feasts his customers with damper, salt meat, and eggs, and treats them at night with a straw mattrass on tressels, in a windowless outhouse, where the contemplative may study the stars through the shattered roof, and declares, with

great *sang froid*, that his inn affords the best accommodation in the province for man or beast.

Most of the villagers are British or German peasants, and their ambition being not great, their wants few and more than supplied, they are happy. Everybody knows everybody else's affairs; and the public voice is loud, and troublesomely influential. Disease is scarcely known among them, so much have their originally sound and robust constitutions been invigorated by their healthful mode of life and the climate. Many of them have hard, sun-tanned skins, and muscles tough, strong, and elastic as vulcanized Indian rubber. They are not fond of learning; their schoolmaster can scarcely distinguish substantives from verbs; their doctor, fevers from bilious attacks. As to the arts and sciences, few of them know the meaning of the terms, and their highest literary ambition is to read, or have read to them—some cannot read —a real English newspaper. But though they are dolts in literary, scientific, and artistic mat-

ters, they want not common sense. In all that concerns every-day life they are shrewd, thrifty, industrious, and persevering.

Many of these villages are just such retired romantic spots as the poets tell us are the dwellings only of virtue and contentment. The inhabitants certainly are more moral, straightforward, and liberal-minded than those in Sydney, Melbourne, and Adelaide; but they are not more contented. If business is well, they sigh for a mansion with carpeted floors, and when they can get a fine villa and more to boot, they are attacked with *amor patriæ*, and but for the dread of the voyage, and the cold, moist climate of their birth-place, would certainly start off. However, they generally remain in their foster-land, and for a change turn wool-growers or agriculturalists.

Such is usually the career of these shrewd, but untutored villagers. They make money, they would fain become genteel and retire, but they cannot: it is not their mission, they must be doing. One hour's bodily labour affords them

more pleasure than a week's idle lounging. All honour to them, for labour either mental or physical, is holy.

The colony of Victoria contains more breadth of land suitable for the growth of grain and culinary vegetables than that of New South Wales. In many places the soil is most rich, and so bare of timber, that no clearing is needful. The agricultural class are at present not great; but as the gold diggings have opened a ready market, and the soil is fertile, the climate genial, the rains abundant, and the crops certain, Victoria may be expected to rival South Australia in the number and the wealth of its yeomanry. The colonial methods of agricultural farming, gardening, and vine-growing are fully detailed elsewhere.

Victoria owes its rise solely to the number of its flocks and herds, which already are greater than those of the parent colony. For pastoral purposes, the climate is all that could be wished, and in many places the pasturage is too rich for sheep. Leases of runs are acquired

by tender, the government usually accepting the tender offering the highest premium for the lease.

Victoria, from being nearer to the south, and frequently refreshed by copious rains from the South Pacific, possesses a climate rather more temperate than that of New South Wales and the other colonies of Australia. But, with this exception, the meteorological features of the province differ not from those of the Australian colonies generally. The air is clear, buoyant, and elastic; the changes of temperature are frequent, great, and rapid. The hot winds are charged with sand, and unpleasantly oppressive. The cold is never intense; the winters are mild, without snow, but with occasional hoar-frosts, and cold, moist breezes that are very chilling. "Bush fires," which so prevail in the Australian colonies during summer, are occasionally productive of ruinous consequences to small settlers in Victoria. Probably on first landing the emigrant may behold one of these fiery devastators, leaping and sparkling over miles of

country, reducing all it meets to ashes, and roaring and cracking like a thousand coke furnaces. Viewed from a convenient eminence, after sunset, the spectacle is highly sublime, and the thought how many unfortunate bushmen have on these occasions fallen a prey to the ruthless element awakens a shudder of horror. Before the impetuous conflagration is a paradise; behind it a blackened desert. The air is heated for miles around. Dense volumes of smoke fill the sky, and put out the bright stars. Myriads of long white flames are issuing from the trunks of lofty hollow trees, as from so many pillars of fire. Birds, snakes, and quadrupeds, being driven from their hiding-places, are all rushing forward in direful confusion before the coming destruction; and commingled with the unceasing crash, crash, of ancient gigantic trees is heard the hissing of serpents, the screaming of birds, and the wild cries of the terror-stricken quadrupeds, the reiterated hu! hu! of the kangaroo resembling the human

cough so closely, that a stranger would take it for nothing else.

In 1851 the total population of Victoria was 77,345, of which 46,200 were males, and 31,142 females. The inhabitants of Melbourne numbered 12,384 males, 10,686 females; total, 23,070. The religious denominations in Melbourne were—Episcopalians, 10,695; Presbyterians, 2955; Wesleyans, 1630; other Protestants, 1560; Roman Catholics, 5500; Jews, 223; Pagans, 16. The occupations of the total population were—commerce, 5020; agriculture, 6139; shepherds, 6139; stockmen 1180; gardeners, 369; other labourers, 6026; mechanics, 3405; male servants, 1412; female servants, 3198; clergymen, 89; lawyers, 105; doctors, 151. The children at school were—Church of England, 2308; Presbyterian, 397; Free Presbyterian, 61; Wesleyan, 656; Independent, 247; Roman Catholic, 1421. Total, 5090.

In 1850 the imports of the colony were

£744,295, the exports £1,041,796; excess of exports over imports, £297,501. The live stock in 1850 was, in round numbers—sheep, 6,000,000; horned cattle, 389,000; horses, 21,000; pigs, 9000. By comparing the last quarter's revenue of the colony in the years 1850 and 1851, the value of the gold discoveries is rendered apparent. The general revenue for the quarter ending the 31st of December, 1851, was £42,041 12*s.* 3*d.*; and the territorial revenue £102,307 15*s.* 5*d.* The returns for the corresponding quarter of 1850 were—general revenue, £31,330 9*s.* 4*d.*; territorial revenue, £37,008 19*s.* 8*d.*; thus showing an increase in the former of £10,711 2*s.* 11d., and in the latter of £65,291 15*s.* 9*d.*; in addition to which £4,000 worth of gold was in the hands of government remaining unsold. The increase in the ordinary revenue arose chiefly from customs' receipts, which exceeded those of the corresponding quarter in 1850 by £10,315. In the territorial revenue there is an increase of £30,141 1*s.* 5*d.* in the proceeds

of land sales; of £18,850 in land and emigration deposits; and of £24,403 12*s.* 7*d.* for gold licenses and the escort of gold. The total increase of the quarter's revenue, both general and territorial, over that in 1850, was no less a sum than £100,009 18*s.* 8*d.*

CHAPTER V.

Melbourne—Demoralized condition of its citizens—Australian pic-nics—Fashions and dress—Dwellings—Meat, vegetables and fruit—Supplies—Commerce—Manners and habits of the people.

MELBOURNE being the capital of the province, the seat of government, and the great centre from and to which all commerce, law, and civilization radiate, we will confine our remarks in the present chapter to that flourishing, but now thinly populated city. Society is not, as here, divided into classes; there is a lower order, an inferior class in morals and deportment, such as gamblers, drunkards, robbers, &c., but they are not what in Britain would be considered poor. Indeed, all

who can work, may, if they please, enjoy affluence. The strong arm and stout heart are more prized, and of more real service to their possessors, than the highest mental gifts or attainments. Little etiquette is practised: all persons act with great independence, and, regardless of appearances, follow only the dictates of their own feelings and sentiments. A most unbounded spirit of avarice actuates all classes; nothing is considered disgraceful but the want of money; the old world does not, and never did, contain such a city of sharp traders. Some of the most influential citizens possess little moral rectitude, and poverty is the only crime that excludes one brother from the house of a richer brother. Few trouble their heads with political, sanatory, or social questions; and no one dreams of rendering a present or future benefit to the colony, otherwise than directly or indirectly to increase his personal gain.

There much good fellowship prevails; most respectable balls and conterts, graced by the captivating presence of the fair sex, are of fre-

quent occurrence; but I regret to add that, among the masses, drunkenness, swearing, and immoral and abusive language, and vicious conduct are of common occurrence. Many, at holiday times, form pic-nic parties. They leave the city early in the morning in a cart or chaise, retire to some mountain gully, perhaps twenty miles from Melbourne; and there, by the side of a rippling creek, where the laughing jacquars wakes the wilderness with his wild ha, ha! and the glistening plumage of chattering, many-coloured parrots sparkles in the sun like precious stones, take their homely, but relished repast. They sit among these mountain wilds, without fear of harm from man or beast, and surrounded by all the grandeur, the awful sublimity of uncultivated nature, to breathe the pure invigorating air that has never been contaminated by plague, cholera, or pestilence; and listen to the thousand wild harmonies, from the wild screech of the cockatoo to the loud flump, flump! of the hidden frog, or the numerous strange sounds emitted by the many curiously-

formed, richly-dyed insects flitting by; all so new, so wild, so curious, that you fancy yourself in a land of sprites and fairies!

And then the journey home by moonlight, among those mountain gullies, is most imposing, awakening, as it does, all the feelings of awe and devotion experienced on visiting a cathedral, or the ruins of an old castle: the bright moon lighting up the perpendicular rocky mass on one side, gives it the appearance of a mighty battlement touching the sky, all in ruins, while the mountains on the opposite side resemble wild, scowling entrances to unearthly caverns; and it requires no stretch of the imagination to convert the shadows around into monsters and fiends from another world, especially as the wind—which among the mountains meets with obstructions in every direction—is continually producing roaring, shrieking, and other wild sounds!

But we must quit these magical scenes for the less enchanting, but more important detail of colonial every-day life.

In Melbourne, no fashions prevail, people dress just as they please. A few years back a well-dressed person was rarely seen: now, however, all following genteel occupations, display both neatness and elegance in their attire. The superfine dress-coat, and Parisian hat, are usual Sunday habiliments of even the labouring population. The out-of-door winter garments are Chesterfield wrappers, Indian-rubber and oil-skin dreadnaughts, sou'wester hats, and high mud boots. In the hot weather, thin white cotton or jean trousers, white cotton or jean blouses, or jackets, and broad brimed cabbage-tree, brab, panama, or straw hats are common. All persons wear flannel next the skin the year through: this, in that hot climate, is, both for health and comfort, most needful. The ladies there, display almost as much profusion and variety in dress as in Britain, and so much are all classes assimilated, that, on gala days, you frequently cannot distinguish the servant of all work, with her silks and jewels, from the lady of fortune—the journeyman from the

master mechanic — the labourer from the wealthy freeholder. Many of the affluent indulge a taste for country seats in the vicinity of the city—some of these villas are delightfully situated.

The citizens generally dwell in two roomed cottages, built either of stone, brick, concrete, or wood; and roofed with stringy, bark shingles—split wood of about the size, shape, and appearance of slates. Each room is on the level with the ground, and about 11 feet wide, 14 feet deep, and 9 feet high; both rooms have a plain lath and plaster ceiling, and the walls of each room are smoothly plastered, but neither papered, stenciled, nor coloured. The front room has a wood floor, the back a brick one. These cottages have no hall or passage, a thin lath and plaster partition divides the back from the front room, and both the street and yard-doors open immediately into the rooms. The doors are well-made: one, if not all, panneled, and to each room there is a good sized window, looking perfectly English.

The doors and windows are plainly painted green, black, and stone colour, and generally a neat shingled verandah is placed along the side of the dwelling most exposed to the sun. There is but one fire-place in each cottage: this is usually in the back room, and as wood is the fuel generally used, it consists simply of a good sized chimney, abutting into the room, and reaching from the ground to some 3 feet above the roof, with an opening in the front to form the fire-place, about 3 feet wide, 2 feet deep, and 4 feet high; a few bricks being built at each side of the inside of the opening on the hearth —also formed of bricks—for the logs of wood to rest on.

The tree used as fuel, when felled, is sawed into logs about 3 feet long, and these logs, which are sometimes from 3 to 5 feet in diameter, are split lengthwise by means of iron wedges into pieces of about 8 inches diameter. This fire-wood, which, previous to the gold discoveries, cost about 10*s.* per cart-load, and now can scarcely be had for any money, is

usually kept in the yard behind the cottage; and as much of it must be reduced in size ere it can be burnt, a large chopper, with a long and strong handle, is a household requisite which every good housewife has learned to wield with efficacy and precision: capital exercise this wood-chopping is too. With wood at 10*s.* per load, the cost of a wood-fire in the colony is about the same as a coal one in London. These colonial fires generate little or no smoke, but they emit an odour most offensive to the nasal organs of the young settler.

All the water-buts are of one size: they contain 50 gallons, stand on the ground in the yard, and have no top, the water being dipped out from the top as it is wanted. The water is supplied by water-carriers, men who line their purses by conveying that necessary from the Yarra to the homes of Melbourne. Their vehicle, or water-cart, is a large tub, placed vertically between a pair of cart-wheels, and drawn by a horse. To fill it, they drive into the river at a suitable place, and ladle out the water

with a strong tin pail; a dozen of them may be seen in the river at a time, ladling away with their bright pails, all glistening in the sun like polished silver. There are a few wells in Melbourne, but the water thus obtained is hard and less wholesome than that of the river.

No kitchens fitted with dressers, sinks, drains, &c., are attached to these colonial dwellings; in fact there is not a single drain or sewer in all Melbourne. Sometimes, however, a solitary cupboard is fitted up in one of the nooks at the side of the fire-place, with a cedar top as a sideboard. It is usual to keep all provisions in a wood safe, with a perforated zinc door, to prevent flies, ants, and other vermin entering. The receptacle for refuse, animal and vegetable, is usually built of stringy-bark pailings over a hole behind the cottage, some 4 or 5 feet deep. In it all the waste matter of the house is deposited, and when full, the householder manages as he best can, for there are no scavengers, dustmen, or nightmen in Melbourne.

Even the colonial knight of the soot bag, who formerly monopolized all the chimney cleansing business at a charge never below 2*s.* 6*d.*, has eloped to the diggings, and left the citizens to do such dirty jobs for themselves.

Usually the yards are small, roughly fenced in with stringy-bark palings, some 5 or 6 feet high. They are unpaved, and uneven in surface, and strewn with empty bottles, brick bats, and tin linings of packing cases, which gives them an unsightly appearance. There are a few gardens in Melbourne attached to the houses of the wealthy, and they form a pleasing contrast to the ungainly yards around them.

House rent is high. Previously to the gold discoveries, the dwellings just described let for about 8*s.* per week: they now fetch about 20*s.* per week. All house property is usually let by the week. Numerous substantial and commodious one and two storey houses, containing six or eight rooms with wash-house attached, have lately been erected: indeed, prior to the discovery of gold, which suddenly checked the

rapidity of its growth, Melbourne was fast increasing in size, house after house springing up, as if by magic; the later erections being more substantial, commodious, and elegant than the former ones.

Few persons, until they have been some time in the colony, purchase furniture; they make their sea-chests and packing-cases serve for chairs, tables, and bedsteads; some even lay the bed on the floor. It is also usual, as crockery and glass-ware are scarce and dear, for the young colonists to content themselves, for a period, with the tin plates, mugs, &c., which they brought with them to use on the voyage. This, semi-barbarous as it may appear, is the mode of life pursued by nearly all the steady, respectable young settlers; and it certainly is the best, most convenient, and economical procedure for all who go out without a government or other certain engagement, as it is impossible for the emigrant to tell on first landing, in what line of business, or part of the colony, he may

establish himself.* Besides, appearances there are nothing; the sea voyage has prepared folk for roughing it, and for three parts of the year the weather is so warm and fine, that no one requires the numerous home comforts so indispensable in Britain.

The furniture usually indulged in by the established colonists, are sofas—used also for

I know a gentleman, who went out to commence business in Melbourne, but his trade not being in demand, he, after waiting a month or so, bought of a person about leaving the colony a farm, with ready furnished dwelling, live stock, implements, and all needful requisites, when lo! the furniture for which, on landing, he had paid £20 to please his wife's notions of comfort and decency, was after many vain searches for a purchaser, sold by auction at a loss of £15 10*s*. Such cases are of common occurrence; as many, disregarding the fact, that in Australia, you pay enormously for what you want, and almost give away what you sell, foolishly sacrifice their valuable capital to appearances, which, there at least, are rather despised than appreciated.

bedsteads—wood-bottom chairs, loo, and square tables, and French bedsteads. They are all well and neatly made, of either Sydney cedar, a wood resembling ponderous mahogany, or red gum—a hard, harsh-working, heavy, red-coloured wood peculiar to Australia; occasionally huon-pine, a native of Van Diemen's Land, and very like satin-wood in appearance, is used for tables and small fancy work.

Many old colonists possess elegant china services, crockery, and earthenware in abundance; and wine-cellars well stored with port, sherry, champagne, and choice malt liquors from the mother-country. They have their gig, tandem, or coach, and the more intellectual have a good library, a pianoforte, and other musical instruments, and a few tolerable prints and paintings. Others keep their race-horses, and stake from £20 to £500 on the chance of a race.

Straw or wool mattresses are there the vogue, feather-beds being tabooed by the medical profession as decidedly unhealthy. A good stock of blankets is necessary, as the weather is so

variable, that although a sheet is more than enough bed covering on one night; another, perhaps the next, is so cold and chilling, that three or even four thick blankets are desirable.

Those important necessaries, bread and meat, are extremely good throughout the colony. In Melbourne, the butcher and baker call daily with their horse and cart, and supply their customers with meat of excellent quality, and loaves equal, if not superior, to first-rate London bread. The colonial mutton and beef are not so fat and rich as British; the mutton has a sugary taste, and eats short like venison. Melbourne is tolerably well supplied with poultry, and the groceries, although not equal to those imported into Britain, are good, and being admitted at a mere nominal duty are remarkably cheap. Spirits and fermented liquors are dear. The colonial brewed ale is denounced by the faculty as decidedly unwholesome; it has a peculiar flavour, and when freely indulged in, produces dysentery and other unpleasant consequences. All the

best malt liquors are imported from England, and retailed at very high prices. Butter, cheese, bacon and ham vary in quality and price considerably. With trifling exceptions, they are all produced in the colony, and are generally poor in quality. It, however, is probable that Victoria will before long produce these articles in great abundance, and of a quality equal, if not superior, to those of the mother country. Vegetables are dear and scarce, and the potatoes are decidedly inferior to those of Britain, but free from the ravages of that scourge, the potato disease. The fruits grown in the colony are mostly excellent. I believe, both for size and quality, the melon, grape, apricot, quince, Cape-gooseberry and apple, equal, if not surpass, those grown in any other country.

Much of the fruit consumed in the colony is, however, imported from the older neighbouring provinces. Sydney supplies oranges, lemons, citrons, &c.; and from Van Diemen's Land apples are consigned in large quantities. Most persons fancy that, in the colony, fruits

are plentiful and cheap; but that is a mistake, for though the climate and soil are such as ultimately to produce an overflowing abundance of most kinds, both European and tropical fruits are, and for some years to come will be, comparatively scarce and dear, as by far the greatest number of trees are yet too young to bear. Then again, the expense of conveyance, where the distance is great or the roads bad, often prevents a grower from sending his fruits to market. Frequently, under such circumstances, they are given to the pigs in cart-loads, or left on the ground to rot.

There are many dairies in and around Melbourne that supply milk at a reasonable price and of excellent quality. Some persons, however, prefer keeping a goat, and when, as is frequently the case, grass is growing near the dwelling, the creature's food costs little or nothing, and its milk, which is highly esteemed, serves for all family purposes. In Melbourne goats are numerous; good ones are worth about ten shillings each. The inhabitants of

Melbourne are great smokers; all the tobacco is uncut, and retailed in square sticks, called figs, each weighing about an ounce. The pipe is a short-stemmed clay one, in fact, a "dudeen." The colonists prize clay pipes before all others; they are choice in their selection, and highly prize the old much-used ones; a pipe which originally cost but a half-penny, after being dyed black as a coal by constant smoking, will sell for as much as ten shillings.

Cooking utensils are about as dear again as in London; few families possess more than three or four cast-iron saucepans, a cast-iron camp-oven to bake in, a frying-pan, gridiron, and cast-iron tea-kettle—these are all imported from England. A few cooking stoves have of late years been made in the colony, but their price precludes all but the very wealthy from purchasing them. The colonial cook has little else but plain substantial dishes to prepare, such as boiled or baked beef, or mutton, fried or broiled chops or steaks, with occa-

sionally a fruit pudding or pie, and a few potatoes or vegetables. The young colonist will at first find it troublesome to cook with wood-fires and camp-ovens, but a very little practice will enable her to perform all her operations with the greatest accuracy.

During all but the very hottest weather, the diet of the citizens differs but little from that of the middle-classes in England; they eat more meat, and indulge in less pastry and nick-nacks. It is usual to make but three meals a day; a substantial breakfast, with meat, eggs, &c., at eight o'clock, A.M.; dinner, most unwholesome in quality and profuse in quantity, at twelve; and supper, with or without meat, about seven in the evening. Professional and independent persons usually dine and sup a few hours later. During the hottest weather, people almost live on grapes, melons and ginger-beer; and when the thermometer stands at 95° or 100° F. in the shade, no repast is more grateful than grapes and bread. Indeed, the stomach turns against meat, and the heat

turns the meat too, for when a hot wind is blowing, a sheep will turn green, stinking, and maggotty five hours after it has been killed. Even that which has been cooked, and fresh enough to eat, will have live maggots blown on it before you can cut it up and get it to your mouth, and in the hot weather the very bread becomes so dry and hard, that it is the practice when a loaf has been cut at one meal, and left, to waste the first cut at the next meal.

Soap is abundant and cheap; some is made in the province, and some is imported from England, but the strong yellow of Sydney manufacture is that most used, and best suited to the water of Australia, which is all more or less hard, and impregnated with minerals, for all cleansing purposes. The English soap contains too little alkali. Candles are made in the colony of excellent tallow, but bad manufacture; they are made in tin moulds, six to the pound, no other sort or size being made. As the tinmen charge but a few

shillings for a set of moulds, many persons make their own candles. Oil lamps are very general, all the shops in Melbourne are lit with them, as gas is not in general use there. The oil is frequently thick, and bad, as the Australian whale fisheries export their best oils to Europe.

It may be well to mention, that almost every article of domestic comfort and convenience, from a nutmeg-grater, or scrubbing-brush, to a Britannia-metal tea-pot, bronze tea-urn, or cut cruets with silver-plated stand, can now be purchased in Melbourne at an advance of from about 50 to a hundred per cent. on the home retail prices.

We will now glance at the business occupations of the inhabitants of Melbourne.

First on the list is the wholesale storekeeper. He is the colonial import and export merchant, and, compared with the population of the colony, his transactions are very extensive. He is a good tactician, sharp, firm, punctual, and tolerably liberal; selling goods only in

the bulk, such as tons of iron, chests of tea, or reams of paper, and transacting most of his business with his brother colonists by means of three or six months' bills. He purchases, or makes advances in groceries, or other goods, on gold, wool, tallow, or other colonial produce. His connexions in London, and other great European and American commercial cities, are numerous. Sometimes a whole ship's cargo is consigned to him at once, and he keeps his goods in a store—in England it would be called a warehouse—a large substantial building, resembling a chapel in its exterior. He carries on business with but few clerks and warehousemen, keeps no horse and cart, never sends goods home, and when he receives a consignment hires carts or drays to convey the goods to his store. These drays are usually the property of the drivers, a numerous class, whose occupation is that of conveying merchandize to or from Melbourne and other places.

A bullock dray is a rude, ponderous affair:

compared with the trim-built British waggon, it may be likened to a brewer's dray, with the addition of rough unplaned wood sides, about 12 inches high; and instead of shafts, a single pole standing out in the centre of the front, to which the bullocks are yoked. There are both two and four-wheeled drays, drawn by teams of from two to eight bullocks.* The drivers usually dress bush fashion, their whip is a piece of tea tree, a branch of a gum tree, or the like, with a piece of thin rope tied to the end, and knotted here and there, to form a thong.

In Melbourne, prior to the gold discoveries, half a dozen of these hardy sun-tanned teamsmen might frequently be seen together, enjoying their nobblers, or bottled-stout, while waiting for loads; some with gold rings on their fingers, others with thick moustaches, or long beards, all

* These patient enduring creatures are better fitted to labour on the rude uneven roads of an Australian colony than the finest English draught-horses.

rough and jolly as sailors, and more free and independent than princes. They earn much money, but many, the unmarried especially, spend their all in the grog shop.

The auctioneer ranks next to the wholesale storekeeper, as a distributor of property. There is both the day and the night auctioneer. The day auctioneer holds his sales between the hours of 11 A.M. and 4 P.M., and disposes of property of every kind and to any amount; he sells large quantities of gold, wool, tallow, &c., effects large sales of imports for the wholesale storekeepers, and frequently buys and sells on his own account. Much land and house property passes under his hammer; he occasionally sells a whole township at a time for a speculator, who has bought land of the government at 20*s*. per acre, then had it surveyed and laid out in allotments, well puffed and advertised in the newspapers, had pretty looking plans of it drawn on paper and hung round the offices of the land-agents, hired vehicles to convey the auctioneer and intending pur-

chasers to the spot on the day of sale, provided gratuitously a champagne lunch to all present, and wound up by the allotments being knocked down at the rate of from £20 to £40 per acre; each purchaser paying a fourth down, and giving a four, eight, and twelve-month's bill for the remainder. When the bills are all met, the purchaser has the land conveyed to him at his own sole expense; but if any are dishonoured, the speculator again sells the land, with whatever is on it, to pay himself.

The day auctioneers charge a commission seldom below a half, or above 5 per cent; their large and commodious sale-rooms, like the bazaars of London, are visited as an amusement by the curious, the gossip, and the lounger; and contain heaps of property of every conceivable kind, from an oil painting, piano-forte, china vase, or bronze figure, to an old saucepan, gridiron, or tin-pot, which as fast as they are sold and taken away, are replaced by other similar wares.

The night auctioneer, like the pawnbroker in

Britain, advances money to hard-pressed tradesmen and reckless speculators. He sells—I should say, sacrifices—the apparel, trinkets, &c., of the disappointed new chum (raw settler); and under his hammer pass damaged or spoiled imports, mis-fit clothes, lucifer matches that will not ignite, warranted steel tools made of cast-iron, and, in fact, everything that is unsaleable in the ordinary market. Though the night auctioneer usually sells between the hours of six and nine o'clock in the evening, he sometimes holds a sale during the day, especially on Saturday afternoons, when the city is full of settlers from the suburbs. He is a jolly, good-tempered, fellow; bantering and joking with his customers, and selling anything, and warranting nothing, from 6*d*. to 20*s*. lots. He often buys goods at the day sales, or of the merchants; parcels them out in suitable lots, and knocks them down at a good profit. He announces his sales by chalking the particulars on a large black painted board, which he hangs out in a conspicuous place early in the morning, and about an hour

before the sale commences a boy stands in the front of the mart with a bell, as large as a town-crier's, which he dingle dings with might and main, only ceasing when the auctioneer mounts his pulpit.

The country hawkers are the great customers to the night auctioneer. These hawkers lead a rough but pleasant life, roaming over the bush in every direction; calling with their cart-load of wares at each station, or homestead, on their way; frequently getting tucker (food) and a shake-down gratis; and realizing a profit of from 1 to 300 per cent. on all they sell.

Drapers are numerous; they are also hosiers, haberdashers, and vendors of British-made clothing. They make almost as much puff and display as those of London; their trade is extensive, their profits great, and the newspapers teem with their selling-off advertisements. Many of their shops are as large and elegant as those in the provincial towns of England.

There are a few boot and shoe shops, but

most of the makers dwell in private; some in such retired by-ways that the young colonist would search for them in vain. They make no show, keep no stock, nor even paint up their trade or name. They seldom lack business, as but few boots and shoes are imported, and even those hang on the dealers' hands, being, almost without exception, too light and weak for colonial wear. The foregoing remarks apply to the trade before the gold discoveries, when nearly everyone wore the thick, heavy, strong, colonial boot, made of the soft and porous, but durable and well-wearing native leather. Now, the demand for boots and shoes is so great, and makers so scarce, that persons are compelled to wear any imported rubbish procurable. According to the latest reliable intelligence, good, industious workmen were earning their £1 a day.

Bricklayers and plasterers* are numerous.

Most workmen work ten hours per day, except on Saturdays, when they cease at four P.M., instead of six;

They are a rough, illiterate, money-making class, all working men, and in general good workmen. The majority of them are both journeyman and master, that is, one will get a job on his own account, and engage some brother workman to help him, and next work journeyman for his former helpmate. They use few tools, each man provides his own, they require very little scaffolding, and none of them think of keeping a horse and cart, as they can always, at a trifling cost, get what they require carted for them in bullock drays. Many persons provide their own material, and contract with the bricklayer for the labour only. The bricklayer's scale of charges per superficial square yard, all windows and doorways being measured in, was, prior to the gold discoveries, as follows:—4½ inch brickwork, labour and materials, 3*s.* 6*d.*, labour only 11*d.*; 9-inch brickwork, labour and materials, 6*s.*, labour

and Mondays, when they do not commence till after 8 A.M.

only 1*s.* 6*d.*; the charges now are about 100 per cent. higher.

Almost every bricklayer in Melbourne possesses freehold houses and land. The land and house property of some bring them in a rental of from £2 to £4 weekly, and yet their love of gain is so great that they never allow themselves a single luxury; and they slave away, working more hours, and much harder, than when they were poor labourers in England, with only daily toil, or the Union before their eyes.

Carpenters and joiners are about as numerous as bricklayers. They are both master and journeyman, according to circumstances, and many of them are steady, clever, industrious workmen, who possess freehold property, and put by weekly about what their whole week's earnings were in England. Prior to the gold fever they had a regular scale of charges, from the shingling a roof, or making a sash, to the laying down joists, or

flooring boards; but now, as there is no competition, they get most extravagant prices.

There are several large timber-yards in Melbourne, where a good supply of American pine and all the native woods of the south colonies, used for building and other purposes, are kept ready sawn, or split into rafters, batterns, palings, shingles, flooring boards, &c. Although ten or twelve miles from the city, forests of building-timber are to be had for the trouble of felling, yet what with bad roads, high wages, large profits, and want of good steam-saw mills, the colonial timber is dearer in Melbourne, than building timber in London.

There are now but few blacksmiths in Melbourne, although, before the great demand for smith's work at the diggings, the roar of their forges and the ring of their anvils was everywhere heard. The blacksmiths are divided here into master and journeyman. Many of their smithies are behind public-houses, or in other out-of-the-way back places. They turn

out their work in a rough inferior style, which they very justly attribute to the coals they are compelled to use, as so ill-adapted to the forge that some prefer charcoal.

There being no coal-pits in the colony, all the coals are imported, either from New South Wales or England. The former are too weak and slaty, and burn up to a white ash; the latter are weak and inferior in quality, and the wrong sort for the smithy. At Melbourne, coal ranges from £3 to £4 per ton; and at the diggings and other places the smiths have to use charcoal, which they must make themselves, as in that land of Ophir and plenty it pays no one to turn charcoal burner. Smiths' work is at present exorbitantly dear; the pay of journeymen is £1 per day; the charges for shoeing a horse at the diggings £2, for mending an axle £4, and for cutting and closing a pair of wheel-tires £5. There is little or no demand even in Melbourne for other than rough country smiths' work, such as making and repairing ploughs and harrows, wheel-tires,

38336

miners' tools, iron work for bullock drays, shoeing horses, &c. Nearly every smith is a farrier; many of them practice as veterinary surgeons, and some are also wheelwrights and cart and dray-builders. There are no iron railings or balconies in the city; and as house-bells, cooking and parlour stoves, and roasting-jacks, are deemed needless extravagances by the penurious colonists, they are rarely met with. Melbourne is yet too young to give employment to white-smiths, house-smiths, cutlers, stove-grate makers, locksmiths, bell-hangers, iron plate-workers, coppersmiths, or machinists. There are, indeed, three or four persons in the city who profess all the above trades, to which they add that of brass-finisher, and to crown all, mathematical, philosophical, and musical instrument maker; but they are only self-taught mechanics, little peddling colonial tinkers, who make nothing, and repair and botch anything.

There are several iron and brass-founders and engineers. They have make-shift furnaces,

heated by blowing fans. They mould, with little care or judgment, in sand far too coarse for such purposes, and use any iron easily procurable; so that when the casting should be soft it probably is hard, or *vice versa*. They can cast a small plate from a flat, even pattern of less than three-eighths of an inch thick; and this, rough and bulged as it is, is to them difficult. Their brass casting is on a par with their iron. They manage to repair steam-engines and other machinery tolerably; and one of them positively made a steam-engine right out, which, with the aid of a man to push it on whenever it happened to stop, worked excellently.

The tinmen are divided, as in England, into master and man. Milk-dishes, milk and baking-pans and dishes, water-carriers' pails, candle moulds, and common tea, coffee, and drinking pots, are the wares in demand. Some of the tin shops are well stocked with every article in the line, from a nutmeg-grater to a dish-cover. The colonial tinmen, although

excellent workmen, make no japanned and only few block-tin goods, as the settlers require but the common, rough, strong wave. The gold fever has added briskness to the tin trade, by creating a demand for tin prospecting pans.

Cabinet-makers are numerous, and many of them Germans. There are establishments employing from six to ten hands, but many are only little masters, who, when cabinet work is not to be had, work at carpentering. The work is turned out rough, strong, and rarely veneered. The woods generally used, are Sydney cedar, red and blue gum, huon-pine, and New Zealand pine. The furniture most in demand, and the prices before the discovery of gold were: Wood-bottom chairs, made of red gum, 8*s.* each; uncushioned sofas (red gum) 18*s.* each; cedar loo tables, 3 feet diameter, £5 each; 4 feet diameter, £7 each; four-legged cedar tables, plain square, 4 feet by 3 feet, with one drawer, £3 each; French bedsteads, from £3 to £5 each.

There are several large ironmongers, and

importers of general and furnishing ironmongery, tools, &c. Their business is extensive, and they commonly exchange their imports for colonial produce, which they ship to England. Some of them are also grocers, and general dealers, supplying the settlers in the interior with every requisite. Ironmongery, hardware, tools, and in fact, all imported metal goods in demand in the colony, are from 80 to 200 per cent. dearer than in England. The demand for costly cabinet furniture, keys without locks, fender fittings, sadler's ironmongery, stove-grate fittings, marden files, engineers' tools, watch-makers' and jewellers' tools, and materials, and much other ironmongery, &c., usually procurable in England, has hitherto been altogether too limited to induce the Melbourne ironmongers to import them.

There are several stone-masons and letter-cutters, who employ ten or more journeymen, and have good sized stone-yards.

Four master saddlers and harness-makers give employment to about twenty journeymen, who

are respectable intelligent craftsmen. Hitherto much saddlery has been imported from Britain, indeed the first colonial saddles—made but about four years ago—were such poor affairs, that the bushmen despised them. Now, however, the colonial made saddles and harness are neat, durable, and better suited for wild break-neck bush riding than those of Britain. Already many prefer the colonial to the imported, and probably a few years hence the importation will entirely cease. Saddlers' and harness-makers' tools and ironmongery are very scarce and dear.

There are several booksellers and stationers, whose shops equal in size and appearance those in the provincial towns of Britain, and where may be bought every variety of literature, from a Bible or spelling-book, to "Chambers' Journal," Dickens's works, "Macaulay's England," or "Dr. Ure's Dictionary of Arts and Manufactures." At these shops also are kept all kinds of stationery, paper in variety from common brown to music, drawing, cream laid

post, and fancy note, envelopes, gold and silver ever-pointed pencils, pens, from quill to gold, blotting cases, pen and desk knives, albums, plain and fancy inkstands, account-books from twopenny memorandum to ponderous ledgers, drawing materials, popular and classical music, &c. Some of these establishments have a circulating library, others have on sale a goodly assortment of bronze figures, papier-maché wares, engravings, drawings, oil and water-colour paintings, fancy cutlery, &c.

House painters, decorators, writers and glaziers, are few in number, and barely make a living; in fact, the existing penurious utilitarian wealthocracy must be superseded by a class possessed of European liberality, and at least a respectable taste for elegance and comfort, before these crafts can possibly meet with much encouragement. Now most people buy brushes, prepared paint, putty, glass, &c., at the shops in Melbourne, where they are kept on hand, and do their own painting and glazing!

Lodging-houses are numerous. They are orderly, genteel, well conducted establishments, differing only from the respectable boarding-houses in England so far as place and circumstances render indispensable. They are the homes of the respectable single men, whose places of business are in Melbourne, and the sober well-behaved bushmen, while staying in the capital, put up at them in preference to the noisy public-house.

There are many grocers and retail store-keepers. They generally do a thriving trade, which only differs from that of the country grocer and huckster in England in the profits being greater, and the expense less.

Both butchers and bakers are a numerous and a very thriving class.

Tailors are few; their limited but respectable trade averages a profit of 60 per cent. more than those of the London craft. Almost all the male attire worn in Melbourne is imported from Britain ready made.

The hatters—two in number—do a good trade at first-rate profits.

General dealers are numerous. They are a set of sharp fellows, who buy and sell anything and everything they can, and regularly attend both the day and night auctions, giving the auctioneer three months' bills in place of cash. Many of the general dealers are also colonial pawnbrokers, advancing small sums on watches, jewellery, &c., for which they charge exorbitant interest, ten shillings being frequently given for the loan of a sovereign for a week.

Milliners and dress-makers are numerous, and chiefly single women sent out by the government, or by some charitable institution. As a class they are bad colonists, some being delicate in health, while others neglect their trade, dress in silks and jewels, and ape the manner of the London lady of fashion. They get but few orders, as most women in the colony wear common plain dresses, which they make themselves.

Char and washerwomen are a hard-working, thriving class, who, since the discovery of gold, have received extravagant pay.

There are several china, glass and earthenware dealers, who do a thriving trade by importing from England wares, which they retail at very high prices. No potteries exist in the colony at present, but their establishment cannot long be retarded, as excellent clays are abundant.

Medical practitioners are not numerous: the average is one to five hundred souls in Melbourne. Their pay is high, especially at the diggings, where a surgeon will not visit a patient under from two to five guineas worth of gold dust. Only duly qualified practitioners are allowed to practice.

Of lawyers the number is considerable; and with few exceptions they are gentlemen of integrity, honour and ability. In the colony no deed, title, conveyance, bill, or receipt, is stamped: law is cheap, and in great request; land and house property are constantly changing hands,

and at each transfer the lawyer steps in. Cases of petty malice, of swindling, insolvency, assault, breach of contract, &c., are of frequent occurrence, and afford a busy field to the colonial bigwigs of the law. Only duly qualified persons can practice.

I now come to a subject that it pains me to moot — the public houses; gladly would I draw a veil over the doings in these sinks of iniquity, did I not deem it imperative as a truthful writer to speak out.* Melbourne contains nearly one hundred of these demoralizing establishments; and when we consider their flourishing condition, their few customers—one hundred and twenty on the average—the high price of alcoholic compounds, and withal the necessity for greater abstinence than in the more temperate climate of Britain, we may form a tolerable idea of the easy circumstances, and intemperate habits of the masses in

* About a dozen of these are quiet respectable taverns, to which my remarks do not apply.

Melbourne. So rapidly is money made by grog-shop keeping, that houses established but seven or eight years have changed hands more than once; the hosts having realized a competence, and retired; indeed, it is an everyday saw in the colony that "he who would raise a fortune quickly must turn publican."

At some of these taverns as they are called, "free and easies" are held three or four nights a week, where many get intoxicated, and all who like, sing what they like, to an extempore pianoforte and violin accompaniment. Between the singing, dance tunes and popular melodies are performed by the violinist and pianiste.

At other of the public-houses, balls, such as would disgrace the very lowest pot-houses in England, are of frequent occurrence. The ball-room is generally a rude undecorated apartment; the scene one of wild confusion; here they dance grotesquely, there a quadrille, a sailor does a hornpipe in one corner; some Scotch reel, with arms a-kimbo in another; a

posse of Irish merrily jig and hugh on the left, while seated on a long form on the right, men and women drink, curse and send every one but themselves to perdition, the musicians all the time playing a popular nigger melody, or the like, as loud and as fast as they can. Such are the everyday pot-house balls in Melbourne; need I add, that the fair dancers are the most degraded of their sex.

The orchestra frequently consists of a violinist and a drummer, who each labour for the ascendancy in a manner truly ludicrous. The violinist rasps and saws regardless alike of time, tune, or any one thing, but rendering audible the melody that is, or should be, streaming from his *cremona*, which, despite his exertions is overpowered and drowned by the incessant thundering of the huge drum, while an occasional extra whack, enough to burst the drum's head in, electrifies the dancers, and sets them prancing away with their hob-nailed boots, noisy as dray-horses,

graceful as crocodiles. It would appear that the masses prefer noise to music: a cornet-à-piston, two or three horns, an opheiclide, and a couple of monster drums, all roaring away with little tune, and no time appears to enchant them.

No one can keep a public-house, nor retail any alcoholic or fermented liquors without a license from the bench of magistrates, which can only be obtained by money and interest, and an apparent public necessity for granting the same.

Besides the occupations already enumerated, there are brewers, tanners, wind and steam flour-millers, soap and candle-makers, coopers, confectioners and pastry-cooks, and coach-builders. The following are small working masters, whose trade, consisting as it does of odd jobs and repairs, is profitable, but very fluctuating and limited, viz.: copper-plate and wood engravers, woollen-cloth makers, wood turners, musical instrument makers, watch and

clockmakers and jewellers, opticians, gunsmiths, cutlers, and workers of zinc, sheet iron, and other metals.

The following occupations, although not strictly urban, deserve mention as affording profitable employment to many settlers.

Brickmakers dwell mostly in the suburbs of Melbourne and Geelong. The bricks are fragile, made by hand, and in such great demand, that a capitalist, by taking out a well-made portable brick-making machine, would doubtless do a thriving and lucrative trade. Persons building in the country usually contract with one or more brickmakers to come and make bricks for them, in which case the employer provides the brickmakers with rations, and the use of a team to draw the necessary supply of wood and water. The emigrant brickmaker should take with him a good supply of moulds.

Splitters, or as they are commonly called tiersmen, reside in the forests of stringy bark, a timber much used for fencing, and building purposes. The splitters generally work two

together, at a spot not before worked for such purposes, and of as easy access as possible for bullock-drays. Here they reside in a woód-hut of their own building, and fell the best wood around, which with a wood maul and iron wedges they split into rails, posts, or palings, according to order. For this work, if industrious, and the trees turned out well, they, before the discovery of gold, earned not less than 12*s*. a day each man, and sometimes much more, as in nine hours a quick practised hand would fell a tree and split it up into 200 rails, worth 14*s*. per hundred. The splitters also build huts at the out-stations, make hurdles and watch-houses for sheep owners, and erect stack-yards for horned cattle.

Sawyers, like splitters, reside in the tiers. They, if possible, choose a spot where tall straight-barrelled trees abound, and with a valley between two hills. At the bottom of the valley they dig a saw-pit, so placed that when a tree is felled it may be conveyed there with the least possible labour, as there are seldom more

than two sawyers working together, and the weight of the timber is so great that, withal, the sawyers after felling a tree, frequently have to wait till a bullock-dray is passing, when they get the teamsman to attach the log to the dray, and have it drawn to the pit. The sawyers in the tiers earn about the same as splitters.

Many of these tiersmen are profligate characters, who spend all their money and spare time in the pot-house, and neither have a comfortable home, nor decent clothes to wear. Those, however, who are sober, and industrious, soon surround themselves with the more needful comforts and appliances of civilization; their dwellings are well put up, warm, and dry. Before the hut, is a neatly cultivated garden, behind, a fenced-in crop of wheat waves in golden luxuriance, and around are poultry, cows, pigs, and other live stock.

Sawyers who are single, commonly roam from place to place, and, carrying their tents with them, contract with any who require their services. After getting one job they

frequently remain for several months on the same spot working for the settlers round, when they make much money, which, on breaking up, is generally all spree'd away at the nearest public-house.

CHAPTER VI.

The gold-fields of Victoria—Description of the diggings —Drought—Rates of wages and prices.

THE discovery of the New South Wales gold-fields, in March 1851, was followed, in July of the same year, by the startling announcement that Victoria was equally rich in the precious metal. Three localities were first discovered: Clunes diggings, 90 miles from Melbourne, on one of the head-waters of the West Loddon river, where gold was found in an alluvial deposit composed chiefly of decomposed quartz rock; Buninyong, near the township of that name,

and 75 miles from Melbourne, where gold was found embedded in compact quartz; and Deep reck, 66 miles from Melbourne, where grain gold was found in contact with a slaty rock.

The workings at Clunes and Deep Creek were, after a short time, suddenly deserted; not from any real unproductiveness, but from the discovery of larger and richer deposits, at Ballarat, in the valley of the Leigh river, about seven miles to the northward of the Buninyong diggings, and six miles from the remarkable volcanic hill of Buninyong.

On the 15th of August, C. J. Latrobe, Esq., Lieutenant-Governor of the province, issued a proclamation, asserting the right of the Crown to all gold found in its natural place of deposit; and immediately afterwards, regulations were promulgated to insure and legalise the search under similar conditions to those previously prescribed in New South Wales.

As in the older colony, the announcement threw Melbourne and the surrounding country

into a state of intense excitement. Individuals of every vocation rushed to the diggings, and their success—which was unparalleled in the annals of gold-finding—no sooner became known, than Melbourne, Geelong, and their large suburbs, were immediately almost emptied of their male population. For a week or so all was bustle in the streets: men in excitement were hurrying to and fro, collecting their outfits, and the roads were clogged with drays loading with provisions and gold-digging implements. But soon the drays rolled off, followed by hosts of men, whose hearts beat high with anxious hopes of success; and the towns that before were noisy and crowded, now became almost as quiet and solitary as the lonely bush. Cottages were deserted, houses to let, the schools were closed, business was at a stand-still, and the shipping was detained in the harbour from the want of hands, who were away at the diggings. Even the women, forgetting local squabbles, grouped themselves together for self-pro-

tection; and many of the wealthy merchants and farmers, finding themselves deserted by their clerks and labourers, left their wives and families at home, and ran off to the workings. Fortunate the family, whatever its position, which retained its servants at any sacrifice; and further secured the wonted supplies for its household, from the few remaining tradesmen who had the means still to supply their customers, at any augmentation of price.

In the towns the price of provisions increased as the labouring population decreased; for although an abundant supply was within reach, there were not sufficient hands to turn it to account. In Melbourne and Geelong all buildings and other contract works were at a stand-still, and no contract could, under any circumstances, be insisted on. Many of the government officers, from the clerks in the public offices, to the messengers, boatmen, and constables, threw up their engagements; and it was only by a considerable

augmentation of their salaries, that those remaining were retained.

Previous to these discoveries, numbers had gone from Melbourne to the Bathurst diggings; now, however, the tide was turned. The Port Philip emigrants returned, and a stream of adventurers from Sydney and other Australian colonies, were attracted to Victoria by the great richness of the Ballarat workings, and the ease with which they are reached from either Melbourne or Geelong.

Gold was next found at Anderson's Creek, and at Broken River, within a mile's distance of Geelong, and in the quartz pebbles with which the streets of Melbourne were macadamized; but these discoveries added not to the excitement, which, indeed, was fast subsiding. Many, on finding themselves physically unfitted for so exposed and laborious a life, had returned from the gold-fields to the more certain, but less lucrative occupations which they had temporarily abandoned. Business began to revive, and the return to order was dimly shadowed

forth, when the highly rich workings now carried on at Mount Alexander, 75 miles north-west of Melbourne, were discovered by a shepherd, who picked up a small piece of gold embedded in quartz, on his folding ground.

To these diggings numbers repaired, and these reaped so rich a harvest from the bed and banks of Forest Creek, where the gold, lying, as much of it did, upon the very surface of the soil, was obtained with little or no labour, that Melbourne and Geelong were thrown into a state of excitement greater than ever. General business was stagnant, nothing but gold was talked about, and vessels in the harbour were so distressed for hands that wages varying £100 to £180 were offered for the homeward voyage; but men could not be had even at this rate.

In September, 1851, a government escort was established for the conveyance of gold from the Ballarat diggings to Melbourne and Geelong, and shortly afterwards, another government escort was put on for the Mount Alex-

ander gold-fields, which were now so productive that some parties in a few hours obtained as much as 50 lbs. of gold. Many secured 5 lbs. or 6 lbs. in a day, and 1 lb. was considered generally to be but an indifferent remuneration for a day's work to a party of four. The prolific workings on Forest Creek were equalled by others down the valley at its junction with Baker's Creek, and equally rich fields were entered upon on Friar's Creek, five miles to the westward, and at Bendigo Creek, on a branch of the Campaspee, arising in the Mount Alexander range; indeed, in every direction throughout the Mount Alexander region, gold was found in great abundance.

The extraordinary success of the Mount Alexander miners, created a "gold fever" in the neighbouring colonies. From South Australia, especially, an immigration set in so great as to drain that hitherto flourishing province of more than two-thirds of its male population. Great accessions also arrived from Van Dieman's Land, and even from the Turon workings in New

South Wales. Numbers also deserted Ballarat for Mount Alexander, and multitudes who, after the first excitement subsided, had returned to their vocations in the towns, were tempted to again try their fortunes by proceeding to the new gold-fields.

The government business, which before had languished, was now at a stand for the want of hands. The deficiency in the number of the police was great, and although a much increased pay was offered, men could not be obtained. Indeed, the sight of the gold passing from hand to hand, and the daily recurring evidence that many even of the most illiterate and profligate were realizing hundreds in a few weeks or days, led them to recoil from the self-denial of the service, and its comparatively pitiful emoluments.

The want of a sufficient force to preserve order, was felt more at the gold-fields than in the towns. There the only law respected was that of might; and gambling, sly grog selling, and crime in some of its most hideous phases, prevailed. But this state of things did not

prevent the discovery of fresh workings, nor the collection of more than a ton weight of gold per month. Gold was found at Muddy Creek, on the Goulburn river; at Batisford, Ankie Hills; the Hopkins river, the Wardigallock range, Fiery Creek, and Mount Ewen Creek.

The new workings, however, attracted but little attention, as the old ones continued to yield an unsurpassed and exhaustless abundance. At Mount Alexander one man got 80 lbs. of gold in an hour, another got 50 lbs. in a week, a third got 19 lbs 6 oz. in a day, and a party of seven, obtained 9 lbs. in about eight hours; indeed, so numerous were cases of good luck, that it would fill our pages to detail them.

According to the returns in the papers recently presented to the Imperial Parliament relative to the discovery of gold in Australia, the colony derived during the quarter ending the 31st of December, 1851, the respective sums of £21,776 19*s.* 11*d.*, for gold licences, and £2,625 12*s.* 8*d.* for the escort of gold.

The gold raised between the 1st of August

and the 6th of December of the same year, amounted to 211,734 oz., value £635,202. It is calculated that in December, about 18,000 persons were at the diggings; but as the Gold Commissioners lacked the power to enforce the law, only 8000 licenses were issued.

It was now discovered that the whole dividing range between Victoria and New South Wales, known as the Snowy Mountains, was one vast gold-field. The precious metal was also found at Bungambrawatah Creek, near Albury; and at Mounts Macedon and Cole, in Gipp's Land; in the Omeo district, near the lake of that name, and also at several places in the vicinity of the capital.

In February of the present year 20,000 persons were at work at the mines. The weekly produce of gold was estimated at 20,000 oz., being at the rate of 1,000,000 oz. per year, or nearly as much again as the probable annual produce of the New South Wales' workings.

The news of the extraordinary yield of the

Victoria diggings now began to excite public attention in England. Six ships that arrived in London in April and May brought upwards of eight tons of gold, in addition to the large quantity previously received. The British woollen manufacturers, alarmed that the pastoral interests of the colony would suffer, and the clip of wool not be secured, waited on Sir John Packington, the Colonial Secretary, who immediately directed that an increased number of emigrants should be dispatched to meet the emergency, but the measure was retarded from want of ships, almost every obtainable vessel being engaged to carry out the thousands of the middle-classes, who have caught the "gold fever" now so rife in Britain.

Lieutenant-Governor Latrobe having suggested that Her Majesty's Government should appoint a gentleman acquainted with geological science as mineralogical surveyor to the colony, the post was conferred on Mr. Arthur Selwyn, in May of the present year, and in all probability new and extensive workings of gold,

coal, platinum, diamonds, and other valuable mineral products will be discovered on his arrival.

There is nothing to distinguish the workings at Ballarat, with their clay-slate, quartz-rock, iron sandstone, and broken ridges and ravines, from thousands of localities in the province, presenting similar internal and external structure. Roughly stated, a section of a working shows under the superficial soil: 1. Red ferruginous earth and gravel; 2. Streaked yellowish and red clay; 3. Quartz-gravel of moderate size; 4. Large quartz pebbles and boulders, and masses of ironstone set in very compact clay, hard to work; 5. Blue and white clay; 6. Pipeclay; below which none of the workings have yet been successfully carrried.

Although such is the general order of the strata, its proportions and inclination are very variable; in some workings the pipeclay may be reached at a depth of eight or ten feet, in others not at thirty, or more. Indeed, it rarely occurs that two workings, however ap-

proximate, furnish similar sections. Each stratum and even the superficial soil, has proved auriferous, but by far the richest deposit occurs in the small veins of blue clay, which lie immediately above the pipeclay, in and beneath which no gold has been found, except where slaty rocks occur, when an abundance of rich nuggets are frequently met with in perpendicular cleavage fissures of the slate. The ore, which is as pure as that of New South Wales, is sometimes found water-worn and incorporated with pebbles of quartz, which appears to have formed its original matrix; at others, it is met with as pure metal, either in smooth rounded pieces or in fused irregular masses of great beauty. It also occurs on the surface of detached masses of iron sandstone, or combined with quartz pebbles, being evidently united to them while in a fused state, but it is most abundant in the clays, from which it is washed in the form of rounded or flattened grains of varied sizes. The seams of auriferous blue clay are seldom more than four

or five inches in thickness, and they appear and disappear, break off and thin out so irregularly, that the closest proximity to a rich vein in an adjacent working can afford no reliable assurance that the labour of the adventurer will be similarly rewarded. The value of this partial deposit, however, when hit upon is great; the washings of a dish of this clay of about ten inches diameter frequently yielding from two to five pounds of pure gold.

At the Mount Alexander diggings, the geological formations and the general appearance of the country are the same as at Ballarat. But although the beds of the valleys are formed of clay slate, covered with an irregular deposit of gravelly clays, the deposited matter is less deep and compact than at Ballarat, and the labour requisite to reach the veins of blue clay and the slate, in which the gold is most abundant, is comparatively trifling. The gold, in general appearance and purity, differs not from that found at Ballarat, except that nuggets weigh-

ing two ounces and upwards are more abundant.

The following statement, by the special correspondent of the "Melbourne Argus," in which newspaper it appeared, may be relied on as a faithful picture of the Mount Alexander workings in March, 1852:

"To give any accurate idea of the appearance of the diggings would be next to impossible. Situated in the heart of a rather densely timbered country, the town resident would, on his arrival, naturally anticipate seeing long ranges of snow-white tents crowded together, or picturesquely grouped in a scene of delightful verdure, the long tangled grass forming a living carpet under his feet, and cool umbrageous shrubs interspersed around. How different, however, is the reality from the picture thus drawn by fancy! The road, which winds along the creek through the diggings, is, from the constant traffic, ten times more dusty than even dusty Melbourne, and the heavy gusts of wind, which pour through the gullies with great vio-

lence, whirl it up in clouds, and scatter it far and near upon everything around. The newly-erected tent does not, therefore, long retain its brilliant whiteness; a few blasts powder it effectually, and give it the same sombre, indescribable, dusty hue that distinguishes its neighbours, and soon take off every appearance of freshness. In the same way, such trees as have escaped the axe are dusted to an unnatural brownness, and look more like the desperate attempts at vegetation made by the stunted shrubs of a Hackney roadside villa, than the giant growth of an Australian forest. Even off the road, the earth is so trodden and worn by the thousands of feet that are constantly passing and repassing, that not the faintest sign of verdure remains upon the ground, all being bare and dusty; while, on the southern side of the creek, the hills are so pierced, and the subsoil so tossed and tumbled about upon their face, that they look like nothing but gravel or chalk-pits and stone-quarries. When to this is also added the constant feeding of the innu-

merable horses which throng the diggings, eating off the grass on the few hills that have not been ransacked, and even cropping the shoots of the few shrubs that grow amongst the rocks, baring them of every particle of verdure, and the rude, rough look of the jagged rocks which protrude from the bare surface—anything but a refreshing picture meets the eye. In fact, the very first sight of the Forest Creek gives to the traveller a very distinct impression of the parching aridity which now prevails.

"I have said that the ranges were heavily timbered; but in this I wish to be understood to allude to the quantity rather than the size of the timber, there being but very few trees of more than three feet diameter, and those only on the flats of the creek, being principally spotted green and bastard box. The majority of the stringy bark, which is the prevailing timber of the hills, range from 10 to 14 inches through, and having their outside bark blackened by the action of frequent fires, form a sombre

background to what is now anything but a lively picture.

"You have heard of the failure of the water on the ground, and doubtless, almost daily paragraphs from one source or another have reached you, respecting the diminished yield of gold on this account: but few have yet adverted to the many evils which this want of one of the first necessaries of life is causing; none have told of the seeds of mortal disease that have been sown and are now sowing; scarcely any have mentioned, except casually, the name of the demon, 'Dysentery,' that is now stalking abroad through the diggings, breaking down with ruthless arm the stout and sturdy, and bending the weak and puny to the dust, giving them graves amidst the soil charged with the golden dross they so much coveted, and in search of which they have lost their lives. Yet all these are evils attendant on this lightly talked of scarcity.

"The political economist touches curiously

on the subject in accounting for the falling off in what has become an article of large exportation ; but no thought enters into his calculations of the lives that are being sacrificed, of the wives that are being made widows, or of the children that are being made fatherless. All this, however, is daily occurring. Death follows death, in quick succession, until the humble little burial place of four graves, to which one of your correspondents has alluded, has gradually assumed the appearance of a town cemetery.

" Leaving this sombre tropic, let me glance at the political and social evils that the want of rain is causing, though, even politically, I doubt much if that which affects so largely the lives of a great portion of the community, is not a matter worth the consideration of the statesman as well as the philanthropist. In this I am borne out by the precedent shown by the South Australian Government. Their first step towards forming a road to Mount Alex-

ander, was to send a party of sappers to sink wells. Too careful of the lives of their population to mark them out a road on which they might perish by the way, by that worst of causes — thirst, their forethought provided against any such casualty. With us, how different has been the case! Truly may it be said, like master, like man; the apathy of the high officers of government has been transmitted to those lower in the scale, and our gold commissioners have thought only of themselves, leaving the population to get water or not as they best could. With every prospect of a long continued drought, the most shameful improvidence of water has been manifest; yet, whilst the men in office have jealously preserved the water-hole in their own immediate locality for their own use, by means of an armed sentry, no effort has been made, either by interdict or otherwise, to secure a good supply of water for the people.

"In various parts of the creek, there

were, some few weeks back, several excellent wells, from which a pure and wholesome supply could be obtained; but as the water failed in the creek, these wells were looked upon with a jealous eye by many of the diggers; who, thinking more of personal gain than of the health or comfort of their fellows, gradually sunk wells around these spots, leaving scarcely any eight feet square of space unpierced. The water thus procured, at first in abundance, was not used for domestic purposes, but was applied, as long as it lasted, for gold washing; and the result has been, that the heavy demand thus made upon the springs, added to the continued drought, and the great evaporation, from so many holes being open, has at last exhausted them. Now this could not have been done without the knowledge of the Commissioners, and yet they remained inactive and quiescent, although they had every power in their hands to prevent this shameful waste.

"One of the first effects from this cause has

been the disease and discomfort already alluded to, both of which might have been prevented by the ordinary forethought which we have a right to expect from intelligent men. The other effects lie beyond human control, for nothing but the clouds of Heaven could have ever furnished such a quantity of water as our diggers would daily demand. As it is, hundreds are now walking about idle, knowing of spots where gold exists in abundance, but yet without the means of washing it out from the earth; these are such as have brought up a good supply of provisions, and are thus beyond the necessity of providing for existence, and consequently have no inclination to labour for a very poor remuneration. Very many there are, however, whose daily wants compel them to toil for a subsistence, and hard indeed is their labour, confined as their remuneration is, in a great measure, to such gold as they can pick out dry from the soil. Even amongst these, cases of luck sometimes occur, and I have

several times heard of lucky finds. There is a third class again, which continue toiling despite all personal discomfort, anxious only to increase the store of gold, for which alone they have sought our shores.

"Under this state of things then it is not at all surprising, that the sound most pleasing to the digger's ear—the rattle of the cradle as it rocks—is no longer heard. Here and there only will you see some desperate individual baling a pea-soupy liquid, if that may be called liquid, which is of the consistency of batter, into his cradle, rocking frantically the while; but as might be expected, losing all the finer and more valuable portion of his gold."

While such is the state of the diggings, it it is well to see what are the prospects of the emigrant in the towns; and this is fully shown in the annexed tables:—

Comparative Statement of the rates of Wages and Prices Current at Melbourne for the months of December 1850 and December 1851.

WAGES AND SALARIES.

Trades or Callings.	Term or Quantity.	Rates in 1850, December.	Rates in 1851, December.
Shearers	Per 100	12*s.*	20*s.*
Reapers	Per acre	10*s.*	20*s.* to 25*s.*
Labourers	Per diem	5*s.*	15*s.* to 20*s.*
Do.	Per week	20*s.*	45*s.* to 50*s.*
Artizans employed by founders, ironmongers, factors, &c.	. . .	. . .	Increase 80 to 120 per cent.
Coopers	Per diem	5*s.*	10*s.*
Shipwrights	Do.	6*s.*	10*s.*
Woolpressers	Do.	3*s.* 6*d*	7*s.* to 8*s.* None to be had.
Sailors	Per mensem	£4	£9, £50 to £100 offered for the run to England.
Stokers	Do.	£12	£20.
Cooks (men)	Per week	20*s.* to 25*s*	£2 to £3.
Waiters at hotels	Do.	20*s.*	£2 to £2 10*s.*
Ostlers and stablemen	Do.	21*s.*	£2 10*s.*
Men-servants in town	Per annum	£25 to £30	£50 to £70. None to be had.
Do. country	Do.	£20 to £25	£35 to £40.
Female servants	. . .	. . .	Increase 25 per cent.
Porters	Per week	12*s.* to 15*s.*	25*s.* to 35*s.*
Salesmen, shopmen, clerks, &c.	Do.	25*s.* to 35*s.*	£2 to £3 10*s.*
Clerks in the banks and mercantile houses, &c.	. . .	. . .	Increase £20 to £50 per cent.

Immigration Office,
Melbourne, January 2, 1852.

HUGH C. E. CHILDERS,
Immigration Agent.

PROVISIONS, &c.

Articles.	Quantities.	Rate, December 1850.	Rate, December 1851.
Bread	4 lb. loaf	5*d.*	1*s.* 4*d.* to 1*s.* 8*d.*
Butter	per lb.	1*s.* 2*d.*	2*s.* to 2*s.* 6*d.*
Cheese	Do.	8*d.* to 1*s.* 4*d.*	2*s.* to 3*s.*
Fresh meat	Do.	1½*d.*	3*d.*
Salt meat	Do.	1½*d.*	2¼*d.*
Ham	Do.	8*d.* to 1*s.*	1*s.* 6*d.* to 2*s.* 6*d.*
Bacon	Do.	6*d.* to 8*d.*	2*s.*
Groceries, generally	. . .	. . .	Increase 25 per cent.
Fowls and ducks	per couple	3*s.* to 3*s.* 6*d.*	5*s.* to 6*s.*
Potatoes	per cwt.	8*s.*	12*s.* to 15*s.*
Vegetables	. . .	. . .	Increase 50 to 100 per cent.
Spirits, wine, beer, &c., retail prices	. . .	. . .	Increase 30 to 50 per cent.
Tobacco	per lb.	2*s.* 6*d.* to 4*s.*	7*s.* to 8*s.*
Confectionary	. . .	. . .	Increase 50 per cent.
Fruit	. . .	. . .	Increase 100 per cent.

Immigration Office,
Melbourne January 2. 1852.

HUGH C. E. CHILDERS,
Immigration Agent.

MISCELLANEOUS.

Description.	Form Or Quantity.	Rate, December 1850.	Rate, December 1851.
House rent			Increase 50 per cent.
Hotel charges			„ 50 „
Stable charges			„ 100 „
Horse and gig	per day	£1	£2
Shoeing a horse		5s. to 6s.	18s. to 25s.
Boat hire and steam-boat charges			Increase 50 per cent.
Cartage from wharf to town	per load.	1s. 6d. to 2s.	5s. to 8s.
Cartage generally			Increase 200 per cent.
Water to town	per load	9d. to 1s.	3s. to 5s.
Do. suburbs	Do.	1s. 6d. to 2s.	6s. to 8s.
Wood for fuel	Do.	12s.	30s. to 50s.
Washing	per dozen	1s. 6d. to 2s. 6d.	4s. to 6s.
Hardware		Increase	50 to 150 per cent.
Slops		„	30 to 50 „
Clothing to order		„	50 to 100 „
Drapery, millinery, &c.		„	30 to 50 „
Boots, shoes, &c.		„	100 per cent.
Do. to order		„	None to be had.
Saddlery		„	25 per cent.
Drugs		„	20 per cent.
Furniture		„	100 per cent.

MEMORANDUM.

In forwarding the accompanying tables, I have to state that I have found it impossible to compile a satisfactory return of wages and prices at the present time.

The former are varying almost from day to day, and from the rapidly decreasing number of persons willing to enter upon any engagements whatever, the rates set down cannot be always depended upon. I have generally given the sums offered by employers rather than those taken.

In many cases I have been informed that the present rates cannot be expected to last, the tendency being towards a further rise.

Immigration Office, Melbourne, January 2, 1852.

H. C. E. CHILDERS, Immigration Agent.

CHAPTER VII.

Qualifications required in a settler—Advice to emigrants —Requisites for the voyage.

As a work like the present can scarcely be deemed complete without a few hints as to who should emigrate, and what are the best and most advisable steps to be taken by the intending emigrant, we here detail briefly, and from our own experience, all that may be deemed most essential in the matter.

In the Australian colonies, the demand for an increase of population is great, the extent of fertile unoccupied country is boundless, and those of the settlers who possess a physical and

mental aptitude to colonial life speedily acquire fortunes. But all men are not alike, fitted to dwell in a rude semi-civilized state, where the population, although widely scattered, is characterized by an energetic untiring industry, and by an unscrupulous, indomitable, and selfish love of money. It therefore behoves all who turn their eye to Australia to ponder well, and not too hastily decide on a step which, from their lacking the powers of body, or the energy, the self-reliance, and the not too moral turn of mind, may place them in a position highly unpleasant, and from which they cannot extricate themselves.

The hardships and privations borne of necessity by the Australian gold-hunter, are only endurable to those accustomed to hard out-of-door manual labour. Even colonial agriculture is far too toilsome, rude, and solitary, to be really agreeable to the clerk, city shopman, or town trader; and shepherding, although a lazy life, is one too rough, rude, and inactive for such individuals. The same remarks apply to the life

of a stock-keeper, which although full of charms to the country peasant, is scarcely endurable to the busy, bustle-loving, chatting citizen. The most successful colonists are individuals of no extraordinary gifts or acquirements, but of hale constitutions, of acute discernment; industrious, frugal, quiet, and temperate habits; having a jack of all trade knowledge of mechanics, of tillage, and of stock-rearing; a general acquaintance with matters of everyday life; and a hope-on perseverance that cannot be daunted by adversity. Poetical dreamers, lazy loungers, frequenters of theatres, balls, clubs, taverns, political meetings, and coffee-houses, and hard drinkers; who, on following their evil practice in the colony, meet a sure, swift, and horrible death in *delirium tremens*, had better, at almost all hazards, stay at home.

Care and circumspection should be used in the choice of a ship. Those who can should visit the docks, and make their own selection; they should deal only with a respectable broker to whose name the ship is advertised, and never

with an agent. The vessel, both for safety and convenience, should be not less than 400, nor more than 800 tons register — tons burden, as advertised, is a deception—and classed A 1 at Lloyds'. Ships marked on the list Œ in red ink, called the red diphthong, are sometimes laid on for Australia; they are quite seaworthy, but generally so abound with rats, mice, and other vermin, that the passenger who desires not more than he bargained for, should avoid them. The commander of the vessel should be skilled, moral, and good-tempered, as on him will greatly depend the safety and the comfort of the passengers generally.

The emigrant with but little money may apply to the Family Colonization Society, founded by the philanthropic Mrs. Chisholm, and which has offices at 29, Bucklersbury. The advantages of this excellent institution are that the emigrant pays for the passage in weekly, or other instalments, at a lower than ordinary price,

and that the ships are fitted with great regard to health, comfort, and general convenience; indeed, all passengers going by private ships, should procure and carefully examine the circular issued by this excellent society, and see that they are not provided with inferior diet and accommodations.

Those who cannot pay for their passage may, if eligible, get sent out by the government, the expense of the voyage—a trifling sum paid by the emigrant himself, to be hereafter mentioned, excepted—being defrayed not by alms, public or private, but out of the half of the gross proceeds of the sale of the Crown lands in the colonies. The emigration moiety of the Crown lands' fund is in accordance with an Act of Parliament 5 and 6 Victoria, cap 36, administered by Her Majesty's Land and Emigration Commissioners, whose last issued regulations for the selection of emigrants to the Australian gold colonies, and the condition on which passages are granted, are as follows:

"*Government Emigration to Australia.*

"Her Majesty's Colonial Land and Emigration Commissioners having received from New South Wales, Victoria, and South Australia, funds for the promotion of emigration to those colonies, deem it desirable to issue this notice as to the conditions on which passages will, for the present, be granted to persons who may be considered eligible emigrants. But, in doing so, they think it necessary, in the first instance, to point out—that the funds in question are supplied entirely from colonial revenues—that in the administration of them the Commissioners act as trustees for the colonies, and are therefore bound to look exclusively to colonial interests—and that it is accordingly their duty not to consider how distress in this country may be best relieved, but how the largest number of emigrants most suited for the wants of the colony may be procured and sent out. In deciding what classes are most suited to the wants of the colonies, the Commissioners are

guided by the periodical reports which they receive from the governments of the respective colonies, and by such instructions as may from time to time be transmitted to them from the colonial authorities, either direct, or through the Secretary of State.

"1. *Qualifications of Emigrants.* — The colonies to which the Commissioners are prepared, for the present, to grant passages are New South Wales—Victoria (lately that part of New South Wales called Port Philip)—and, to a limited extent, South Australia.

"2. The candidates must be sober, industrious, and of general good moral character; on all which points decisive certificates will be required. They must also be in good health, free from all bodily or mental defects, and the adults must in all respects be capable of labour, and going out to work for wages.

"3. The candidates most acceptable are female domestic and farm servants between the ages of twenty and thirty, who have been out in service and thoroughly understand

their business, and families consisting chiefly of females.

"4. *Ineligible Emigrants.* — Governesses and females not of the working class, professional men, schoolmasters, clerks of every description, and, in short, all persons without capital who are not strictly labourers, are ineligible, and are strongly recommended by the local authorities not to emigrate, as there are already a larger number of persons of these classes in the colonies than can find employment.

"5. Families with more than four children under twelve, widows and widowers with young children, unmarried females with children, persons under eighteen without their parents, persons who intend to buy land or invest capital in trade, or who are in the habitual receipt of parish relief, and (for the present) single men—unless sons in eligible families, and balanced by young women of good character—cannot be taken. The reasons for

declining single men are, that the male sex already greatly preponderates in Australia, and that, being unincumbered, they are the most likely class to resort to the gold-fields, and thus neutralize the object of paying their passage out of colonial funds. The reasons for declining widows and widowers, and families with young children, are, because, as regards the former class, the children would be left friendless and destitute in a strange land if anything happened to their only parent, and because, as regards the latter class, many young children on board ship increase the risk of disease and mortality, and the parents find a difficulty of obtaining employment on arrival. The separation of husbands and wives, and of parents and young children, will not be allowed.

"6. The Commissioners, moreover, reserve to themselves an unfettered discretion of selection, and of declining any candidate, although apparently coming within the regulations. No one, therefore, is to consider

that by filling up the usual form of application he acquires any claim, or will necessarily be accepted.

"7. *Mode of Applying, &c.*—Persons who wish to inquire whether they are likely to be accepted should communicate their ages and callings, and, if married, the number and ages of their children, to the Commissioners, or to any of their agents appointed in various localities to supply, gratuitously, information and forms to suitable applicants. These agents, however, have no power to promise passages, nor to receive money. If, therèfore, applicants wish to make their payments through the agents instead of in the manner pointed out in the 'Approval Circular' hereinafter mentioned, they must understand that they do so at their own risk, and that the Commissioners will be in no way responsible.

"8. When candidates are accepted by the Board, they will receive a printed 'Approval Circular,' pointing out how the required contribution is to be paid, before which time no pre-

paration for departure should be made. When the money is paid, an embarkation order, which is not transferable, will be issued, naming a particular ship, and the time and place of embarkation. Before the receipt of this order candidates must not leave their homes.

"9. *Scale of Payments.* — [For South Australia, New South Wales, Victoria, and Van Diemen's Land.]—Annexed is the scale of contributions in force, for the present. But to prevent misapprehension it is to be distinctly understood that this scale is liable to modifications from time to time, as the interests of the colonies may seem to demand, and that the rates will be increased when circumstances require it:—

Classes.	Age.		
	Under 45.	45, and under 50.	50, and under 60.
I. Married agricultural labourers, shepherds, herdsmen (and for South Australia, copper-miners), and their wives; also women of the working class—per head	£1	£5	£11
II. Married mechanics and artisans (if deemed eligible by the Commissioners) and their wives, per head .	£2	£6	£14
III. Single men, subject to the condition in article 5:—			
If accompanying their parents . . .	£2		
If not accompanying their parents (when they can be taken) .	£3		
IV. Children under 14—per head . . .	10s.		

"10. *Outfit, Tools, &c.*—The emigrants must provide a proper outfit. The smallest quantity for each person is as follows:

"For Males: two complete sets of exterior clothing, six shirts, six pairs of stockings, and two pairs of shoes.

"For Females: six shifts, two flannel petti-

coats, six pairs of stockings, two pairs of shoes, and two gowns, with three sheets for each berth, and four towels and 2 lbs. of soap for each person.

"But the larger the stock of clothing the better for health and comfort during the voyage, which usually lasts about four months; and as the emigrants have always to pass through very hot and very cold weather, they should be prepared for both. Two or three serge shirts for men, and flannel for women and children, are strongly recommended.

"S. WALCOTT, Secretary."

As to outfit, the capitalist may learn all particulars, and obtain every necessary and luxury for the voyage at any respectable outfitter's. To the man of limited means very little will suffice. The thrifty 'tween deck passengers wear with impunity clothes that at home would disgrace their names; in fact, they make any old things do, provided they are not dirty, cleanliness being highly important on board ship.

Both summer and winter clothing are needful, as tropical heat and chilling cold will be experienced; and there being but little chance of washing on board, on account of the scarcity of fresh water, a four months' supply of underclothing should be taken.

A good dreadnought, sou'wester hat, and a couple of pair of strong shoes, will be found a luxury in wet weather. All who can, should provide their own bedding, not forgetting a good stock of those essentials, blankets. The bedding provided by the ship is poor and very scanty; besides, as most brokers allow £1 off the passage money to those so providing themselves, and the articles are, in Australia, worth as much or more than their original cost, the pleasure of a comfortable reposing-place during the voyage is obtained at no real loss.

Provisions for chief cabin passengers are cooked and served up by the steward as in hotels. Persons in the 'tween decks receive their rations twice or oftener in a week, according to a printed scale, which every passenger

should obtain from his broker prior to paying for his passage. These cook for themselves: in the general way, they divide out into messes of six or eight, and one, in turn, is appointed weekly to act as messman. In well-regulated ships, there is a cook who attends to the stove, and sees that the food is properly done, and cooking is only permitted at stated times; but these matters are managed in no two ships alike.

The important domestic utensils are, a water-keg, several tin water-cans, oil-bottles, holding from one to three or four gallons each, so as to be able to always keep a reserve of water on hand, one or more hooked tin pots, two or three saucepans, a tea-kettle, a baking-dish, and some calico bags to contain the rations. These are for the use of the mess; for individual use will be required a tin or pewter plate, a knife, fork, spoons, drinking-cup, and wash-bowl. Of all domestic utensils, a good supply should be taken, as by the time the voyage is half over many wear out or are destroyed, and passengers

who have them not, will, if possible, pilfer from their neighbours. A good way to keep yours to yourself it is scratch your initials on them, and never leave them lying about.

The most pleasant and comfortable cabins in the 'tween decks are those near the middle of the ship, and close to, but not immediately opposite, a hatch-way. It is well not to rely solely on the ship-provisions for food, as it too frequently happens that towards the close of the voyage, a discovery is made that the butter, the preserved potatoes, or other stores are run out; and their place can only be supplied by coarse, mouldy biscuits, fit but for dogs or pigs. Besides, that necessary, flour, is generally short in weight; and being scarce, is of course stolen just when you required it to make bread or puddings. Then again, the ship provides the 'tween decks with but about half a dozen dim glims of lights, which on long dreary evenings add to the gloom by rendering darkness visible.

However, it is impossible to do more than

give a list of the provisions and stores most needful, as the emigrant must himself select what is best suited to his taste and circumstances. The provisions should be kept as much from the sea-air as possible. They are flour, captains' biscuits, cheese, herrings, bacon, ham, onions, and sago, or arrow-root, all in good quantity, as they each will be most acceptable. Some pickles, spices, jams, marmalade, eggs, carbonate of soda, tartaric-acid, and—means permitting—preserved fruits, meats, and milk, would be a desirable addition to the above. If easily procurable, a few apples, oranges, and lemons, may be added to the store for early use. A bottle or so of wine or spirits, and a small assortment of medicine would also be handy, as ship doctors are neither remarkable for skill nor attention.

The heads of families should provide Scotch snuff to destroy the prolific, dirty strangers, sometimes brought on board in children's heads; and also camphor, sal-volatile, smelling-salts, disinfecting fluid, and perfumes to burn. The

cabin should be fitted with shelves and ceiling-hooks, and have a fastening on both the inside and the outside of the door; and you should take all your books, and music, and the musical instruments that you play on, to make the long, dark evenings pass pleasantly; not forgetting to provide some composition-candles and a ship's candle-lamp.

Before the ship sails, the boxes and other movables should be tightly lashed and firmly secured, as you must expect, for a week or so, to be too much overcome with sea-sickness to attend even to yourself, let alone these matters. At sea, if you talk not of your own affairs, avoid scandal, make the best of everything, rough and smooth, and are generally agreeable, the time will pass so pleasantly that on reaching Australia you will leave the ship with regret. The voyage is generally performed in about 100 days, and is proverbially safe and pleasant; the weather, especially in the southern latitudes, being usually more clear, bright, and beautiful than summer in England.

On landing in Australia, be not depressed with the general appearance of things; prepare your mind for the worst, and manfully brave the sudden, the violent transition to colonial life; for if once overcome by despondency, you will probably sink into a listless state, and at last become a lost, lazy, and, maybe, drinking outcast, shunned by all but the worthless; for the colonists have only sympathy for the diseased and afflicted, and spurn the idler and drunkard from their doors. If you have money, don't talk about it, and keep it in your pocket until you have gained a general knowledge of the colony and colonial life; for too many of the merchants and traders, in the towns, delight in what is called "colonializing the fresh arrivals right off the reel"—that is, taking advantage of their ignorance of colonial matters, and legally cheating them of all they possess. This is not the case, however, with all the townspeople, some of whom conduct their business on the highest principles of honour and integrity. Take no letters of intro-

duction to strangers in the colony, for, if delivered, they will assuredly do no good, and may, in some cases, be productive of harm. Tarry as short time in the town as possible. If you are touched with the gold mania, start for the diggings at once, and when there, prefer searching for a good claim to buying one; as many who sell their claim, besides other sharp colonial tricks, deceive the purchaser, by secretly sprinkling a little gold-dust about, and then digging it up again as a proof of the richness of the spot. If agricultural, or sheep or cattle-farming is your object, hie away at once to a suitable district, and take the first engagement that offers, be the terms what they may, as, to you, experience will at first be of greater importance than immediate gain. Though ever so poor, if backed by a healthy, go-ahead colonial spirit and stout arm, you cannot fail of success. If you choose, you may grow your own wheat, vegetables, and fruits, rear your own live stock, and make much besides by working for hire. The weather being so generally fine, more out-

of-door work can be done in Australia than in England; and wages and profits being high, and the expenses of living comparatively low, you can, if frugal and industrious, put by three or four days' earnings out of the six, and this may be invested so as, without trouble on your part, to obtain a sure and clear profit of from 15 to 25 per cent per year.

CHAPTER VIII.

Colony of South Australia—Discoveries of Captains Sturt and Barker—The mountain ranges—Character of the formations—Rivers, lakes, and creeks.

THE flourishing colony of South Australia might to this day have remained an unknown wilderness, had not distressing droughts too often rendered Sydney and its neighbourhood an arid desert, and impelled the despairing colonists of New South Wales to search far and wide for well-watered grassy plains to sustain their famishing sheep and cattle.

The great merit of solving this problem belongs to the intrepid Captain Sturt, an officer then serving in his regiment in New South

Wales, who, with a few undaunted companions, ventured into the unknown territory, then overrun with hostile natives. They traced the river Murrumbidgee down its right bank to 34° 25′ S. lat., 143° 57′ E. long., where they launched a boat which they had conveyed overland, and another, which they had contrived to build on the spot; and after a week's navigation on this water-course, they discovered its junction with the broad and noble river named by Sturt, the Murray.

Down this fine stream they hurried on, beset with rapids, shallows, sunken trees and sand-spits, until, after a perilous navigation of nearly 1000 miles, they reached the broad expansive Lake Alexandria, or, as it is now called, Victoria, which they explored to the very sand-banks that separate it from the sea at Encounter Bay. The accidental loss of a quantity of their provisions, compelled them to hasten their return to Sydney, up the Murray, an herculean labour, against a powerful stream; which this undaunted little band accomplished after eighty-

eight days of suffering and toil, so severe, that one of their party became insane, and their heroic leader was rendered, for a period, totally blind.

The very favourable report which Sturt gave of the Murray, and the country around it, induced the Governor of New South Wales to direct Captain Barker, then about returning to Sydney, from an useless position at King George's Sound, to explore the country between Gulf St. Vincent and Lake Victoria. While thus engaged, poor Barker was murdered by the natives, in the vicinity of the district which the colonists have named Mount Barker, as a token of their appreciation of this worthy man's services. Mr. Kent, who was attached to Captain Barker's mission, fully corroborated Captain Sturt's report. "There," he stated, "fine soil, rich pasturage, and excellent fresh water exist in abundance; it is a delightful spot, in whose valleys the exile might hope to build, for himself and his family, a peaceful and prosperous retreat."

The graphic narrative of these discoveries, published by Captain Sturt, shortly after his arrival in Sydney, and their subsequent confirmation by Mr. Kent, produced an anxious desire in England to establish, in these newly discovered regions, a free colony, on what is called the Wakefield system — a system propounded by Mr. Wakefield, and based on the principle of systematically plotting out the Crown lands, advancing regularly from a settled district; charging a high price for them; selling them only in large quantities; conveying the labourer from the United Kingdom with the funds thus obtained; and thereby preventing the dispersion of the people, and causing a stream of poor working men to be constantly pouring into the colony, who, when there, must be the servants of the rich, until by industry and frugality they themselves become landowners.

The province of South Australia is situate on the southern coast of the insulated continent of Australia, and its boundaries (the sea-board

excepted) are imaginary lines of latitude and longitude that have never been traced or defined otherwise than on paper. The boundary on the south, is the Southern Ocean; on the north, the unknown territory at the 26° of S. lat.; on the west, Nuyt's Land, 132° E. long.; and on the east, the new province of Victoria, formerly Port Philip, at 141° E. long. The coast-line trends in a south-east direction from the 132nd to the 141st meridian, and is estimated at 1600 miles; the eastern boundary extends over 12 degrees of latitude, or 834 miles; the northern over 9 degrees of longitude, or 559 miles; the western over 6 degrees of latitude, or 417 miles; making in all, an area of 300,000 square miles, or 192,000,000 acres being more than double the dimensions of the British isles. The greater part of this extensive territory is yet but very imperfectly known, and ages must pass ere its great and multifarious resources can be fully developed. When we consider the salubrious climate—the fertile soil, the mountains of

metals, from iron, copper and lead, to silver, and gold; the masses of precious stones, the numerous bays all frequented by whales, the commodious harbours, and the excellent maritime position of this flourishing young settlement, we can only see before it a bright career of continued successes, and feel surprised that the sister settlement in New South Wales should have existed for nearly half a century before attention was directed to this favoured portion of the "Great South Land."

The chief settled district lies between the parallels of 29° 13′ and 32° 10′ S. lat., and 138° and 140° 20′ E. long. Its western boundary, is Spencer's Gulf, York's Peninsula, and St. Vincent's Gulf; its southern, Backstairs Passage, and the ocean; and its eastern may be said to extend from Bonney's Wells, in 36° 5′ S. lat., to the great bend in the Murray, latitude 34°, and thence to Mount Arden, latitude 32° 19′, near the embouchure of Lake Torrens. York's Peninsula is occupied as sheep pastures; and

Port Lincoln, and other portions of the Peninsular west of Spencer's Gulf, have been partially explored from the head of Spencer's Gulf in a northern direction, to Streaky Bay in a western direction.

Mountains.—A mass of mountains of but moderate elevation, stretches from Cape Jervis, 35° 30′ S. lat. along the eastern shore of St. Vincent's Gulf, and thence to Mount Hopeless, in 29° 13′ S. lat. in one direction, and to Mount Arden in 32° 5′ S. lat. near the head of Spencer's Gulf, in another direction. This extensive chain is broken into ranges, known as the Flinders, Narien, Mount Bryan, Belvidere, Barossa, Mount Lofty, and Wakefield range, besides several minor ranges; all of which run north and south, except that part called the Wakefield range, which extends from Cape Jervis eastwards towards Encounter Bay. The precise points where one range terminates and another commences have not been defined; the heights and situations of the most remarkable spurs have, however, been

determined with tolerable accuracy to be as follows:—

PLINDERS RANGE.

	Height in feet.	Lat.	Long.
Mount Arden	3000	32° 10′	137° 58′
Mount Brown	3000	32° 30′	138°
Mount Remarkable	3000	32° 45′	138° 10′
Barn Hill, about	2200	33° 30′	138° 12′
Mount Hummock	2000	33° 56′	138° 10′

NARIEN RANGE.

Ulaloo	2710	33° 20′	138° 45′
Campbell's range		33° 30′	138° 45′

MOUNT BRYAN RANGE.

Black Rock Hill	2750	32° 40′	138° 50′
Mount Bryan	3012	33° 26′	139°
Razor Back	2922	33° 30′	139°
Camel's Hump		33° 43′	138° 48′
Mount Horrocks	1984	33° 56′	138° 43′

BELVIDERE RANGE.

Mount Rufus	2000	34° 18′	139° 12′
Light's Hummocks	1480	34° 18′	138° 50′

BAROSSA RANGE.

Kaiserstuhl	1974	34° 35′	139° 4′
Mount Crawford	1890	34° 42′	139° 3′

MOUNT LOFTY RANGE.

	Height in feet.	Lat.	Long.
Mount Gould .	. 1750	34° 45′	138° 58′
Mount Gawler .	. 1790	34° 47′	138° 54′
Mount Torrens .	. 1920	34° 53′	139° 2′
Mount Lofty .	. 2235	34° 58′	138° 48′
Mount Barker .	. 1681	35° 3′	139° 1′
Mount Terrible .	. 1296	35° 20′	138° 37′

WAKEFIELD RANGE.

Mount Cone .	. 1350	35° 23′	138 40′
Mount Jagged .	. 1230	35° 23′	138° 44′
Mount Compass .	. 1180	35° 3′	138 42′

Tracing these ranges from north to south, the first eminence is Mount Hopeless, a low haycock-like peak, devoid of all vegetation, within the sterile country encircled by Lake Torrens. The land in the vicinity of Mount Hopeless, is broken into chalky hillocks, from 50 to 300 feet in height, generally covered by stone or sand, quite destitute of water or vegetation, and presenting the appearance of having formed a table-land that had been washed to pieces by the violent action of water, and of which these fragments now remain.

The prospect from Mount Serle, a prominent eminence about 3000 feet high, and situate 90 miles southward of Mount Hopeless, is most gloomy and forbidding; in every direction only a rugged barren desert is visible. The barren ridge to the west of Mount Serle, named Mount Deception by Mr. Eyre, who was disappointed by not finding water in its neighbourhood, attains an altitude of about 3000 feet, and is connected to the main range by a chain of low spurs.

The hills southward of Mount Serle, to the parallel of Mount Brown, are rocky, barren, and precipitous, and abound in quartz and ironstone.

From Mount Arden to Mount Brown, in Flinders range, the country gradually becomes less sterile; the mountains to the southward, although abrupt and rocky, are clothed in prickly grasses, and send forth several watercourses, which flow into Lake Torrens, and whose meanderings along the plains between the ranges and the lake are marked by lines of lofty gum-trees.

Flinders range, extending from Mount Brown to Crystal Brook, a distance of about 60 miles, varies but little in character. The hills on the western side are rocky and precipitous, with deep ravines at short intervals, and ring like metal when struck with a hammer. The rocks are partly argillaceous, and partly of a red sandy micaceous slate. The stringy-bark trees prevail on the higher parts of this range; and the secondary ranges, especially on the eastern side, are well wooded with lofty gum-trees.

To the eastward of Mount Brown, and running nearly parallel with it, is a range of igneous mountains of basaltic character, rugged and fantastic in appearance, and with hollows resembling craters of extinct volcanoes. The highest of these is Black Rock Hill, northward of which, in about 31° S. lat. is a hot spring.

The hills of the Narien range, to the westward of Black Rock Hill, are of moderate elevation, well grassed, scantily timbered with she-oak, and all traversed with parallel veins

of slaty shale, nearly vertical, and running in a direction about north-east, at regular distances, only a few feet apart. Round the base of Ulallo, the most remarkable spur of this range, runs a deep reedy creek, of the same name, which is never quite dry in summer, and which after flowing in a north-easterly direction for about 10 miles through a rugged mountain tract, falls into a barren plain and is lost in the Murray Scrub.

A few miles south-east of Ulallo rise the lofty peaks of the Mount Bryan and Razor Back mountains, which are entirely of slate formation, and gradually fall away to the westward in long peaky spurs, intersected by deep picturesque fertile valleys. The slopes to the westward are abrupt, rugged, and in some spots precipitous, and end in long grassy spurs, with deep gullies, through which several creeks flow throughout all but the summer months. The great Burra Burra mine is situate about four miles to the southward of Mount Razor Back.

From Mount Bryan to Cape Jervis the ranges are well watered, grassed and wooded; and between the spurs, which are frequently rocky, rugged, steep, and barren, there is a line of undulating table land, extending from north to south about one hundred and eighty miles, and averaging twenty miles in breadth. This highland is the most fertile, salubrious, and valuable tract of country in the province; and but for the labour to man and beast of toiling over mountain slopes, or through wild tortuous gullies, would be preferred by all cultivators of the soil, for location; as, wherever tilled, it has produced the finest of crops; in some cases the wheat has risen to the height of seven feet, and yielded fifty-six bushels to the acre.

The Barossa range, about five miles to the eastward of Gawler Town, forms a succession of lightly-timbered, grassy hills, of no great elevation, intersected by broad, picturesque, fertile valleys. In some of these valleys, rubies and other valuable precious stones have been found, and according to Mr. Minge, a learned German

mineralogist, and an old South Australian colonist, they exist there in great abundance.

The Mount Lofty range rises in many places from the Adelaide Plains by hummocky sand-hills, beyond which run a succession of thick and very tortuous spurs, in some spots densely wooded with stringy-bark, and generally capped with ferruginous sandstone, or a conglomerate of sandstone and quartz. Between these spurs and the main ridges, the table-land, as before remarked, is generally very fertile: some of the gentle slopes are clothed with fern—a sure sign of rich soil; others are timbered with lofty gum trees, weeping she-oaks, or bushy wattles; while, here and there, flowering heaths, wild geraniums, modest violets, and others of the floral tribe, meet the eye in pleasing variety. The valleys throughout this range are very generally composed of transition slate, and the surface above the slate is usually grassy.

Gumeracka, and other portions of the table-land near Mount Torrens, present some beau-

tiful undulations of lightly-wooded low hills and gentle valleys. The river Torrens takes its rise close to Single-tree Hill, a small eminence near Mount Torrens, and wends its tortuous course in a general south-easterly direction, fertilizing the valleys and gullies of the mountain range, until it reaches the Adelaide Plains. To the south-west of Mount Torrens the scene becomes wild; many of the hills are rocky and sandy: in some spots barren spurs rise to a considerable height, and overhang deep gullies strewn with huge boulders, which have been hurled by the elements from the heights above. I myself witnessed the fall of a rocky mass, as large as a three-story house, that was severed by lightning from the top of a perpendicular mountain wall, and fell to the depth of 1000 feet, into a barren chasm below. It was a terrific sight, and the stunning rumbling sound that accompanied the fall, was echoed from hill to hill, and mingled with the roaring thunder, was too awful to be described, too terrible to be forgotten.

Mount Lofty, a long, narrow eminence, about seven miles to the south-east of Adelaide, can be seen for miles away, towering above the less prominent but more valuable hills of lead and copper around it. On the south-east of Mount Lofty, there is a dense forest of lofty stringy bark-trees, called by the colonists the tiers; in this portion of the range the slopes are generally steep—sand-stone, and bog ironstone predominate, and the soil is poor and thin on the ridges, and rich and productive in the gullies.

The Mount Barker ridge is about one mile broad and eight long, and rises rather abruptly from a beautiful, fertile, undulating, lightly-wooded table-land, that runs in a broad belt from north to south. This table-land is 1600 feet above the level of the sea; and about 12 miles to the south-east of Mount Barker spur, it falls rather suddenly to the height of 1200 feet, and stringy-bark forests occur. From 10 to 20 miles further on, in the same direction, it is crossed by tortuous

precipitous ridges, that rise to the height of 1500 feet; and immediately beyond these, to the southward, the Mount Terrible ridge branches off towards the sea, into which it precipitately falls, from a height of 1300 feet, at the south bend of Aldinga Bay, and divides the rich valleys of the Myponga from the hundred of Willunga.

In the hundred of Yankalilla, several ridges, commencing in high, sharp, thickly-timbered spurs, shoot out towards the sea, and slope down to low mounds clothed only in grass, and divided from the sea by a narrow belt of undulating table-land. Other large branches radiate to the east, through the hundreds of Kondoparinga, Akangkita and Goolwa, and fall with a gentle descent towards Lake Victoria, Currency Creek, the Finnis, Angas, and other streams, flowing through the picturesque grassy valleys.

The Wakefield range, which, to all appearance, is a disruption from the southern extremity of the Mount Lofty range, extends

from the shores of Yankalilla round the coast of Cape Jervis to Encounter Bay; and in many places is sharp, precipitous, sandy, barren, and scrubby. Between this range and the southern extremity of Mount Lofty, a beautiful, well-watered fertile valley, varying from 365 miles in width, and about 25 miles in length, extends from Yankalilla, near the mouth of the Gulf of St. Vincent, to where the river Ininan enters the sea at Encounter Bay. In this valley are situate a range of hillocks, about 700 feet high, called Division Hills, which separate the waters falling into St. Vincent's Gulf, from those flowing into Lake Victoria.

Eastward of Lake Victoria the country is not marked by a coast range of mountains. A few elevations occur, and they most probably are continuations of the parallel ridges of the Australian hill formation, which throughout the island continent has, with few exceptions, a general direction from north to south. The most prominent eminences on

this portion of the coast are the extinct volcanoes, Mounts Schank and Gambier.

A considerable portion of the Eyria peninsula, on the west of Spencer's Gulf, consists of mountainous table-land, whose surface rises to the height of 1,300 feet above the level of the sea, and is traversed by numerous short and narrow ridges and spurs, from 300 to 700 feet in elevation above it. Many of these ridges and spurs have not been named, nor even examined by a single explorer capable of measuring their altitude or judging of their formation. They are in much confusion, but their prevailing direction is to the north-west and south-east.

The Marble range, about thirty miles northward of Boston Bay, rises in abrupt spurs of glistening quartz, that sparkles in the sun like diamonds. In the distance, to the westward, Mounts Dutton and Greenly are visible. The latter attains an elevation of only about 800 feet, and stands close to the beach, ten miles southward of Point Drummond. A range of

abrupt, lofty cones of which Albert Peak is the most prominent, is also seen to the northward of the Marble range. Mount Olinthus 2,000 feet in height, is situate fifteen miles to the north-west of Flinders' lagoon; and forty miles nearer to the head of Spencer's Gulf, the Middleback Mountains, an offset from the table-land, attain an elevation of 1,800 feet.

The rocky heights, termed the Baxter range, rise abruptly from the plains in 32° 35′ S. lat., 137° 2′ E. long. The spurs of this range are entirely of a coarse conglomerate formation, and mostly barren and stony; but the gullies and the valleys are carpeted with rich grass, and watered by small creeks of good fresh water.

The Gawler range, a succession of detached steep rugged ridges, consisting principally of porphyritic granite, devoid of timber, and of barren aspect, extends in a general west-south-westerly direction along a considerable portion of the north of Eyria peninsula,

between Mount Arden and Streaky Bay. Not a single creek or spring of fresh water is known to emanate from this range, the only water obtainable in the vicinity being that deposited in the granite cliffs by recent rains. Small salt-water lakes, with salsalaceous plants growing around them, are met with among the hills, and also in the adjacent country, which, as far as examined, is low and barren, the soil being in many places saline, but nowhere affording indications of fresh water.

Creeks. — Besides the streams designated rivers, there are also many smaller water-courses, called creeks. These creeks are commonly tributaries to the rivers, and only flow during heavy rains, after which it entirely depends on the character of the soil through which they run whether any water remains in them or not.

Springs.—It appears highly probable that a very large proportion of the surface-water

of South Australia sinks beneath the soil, where from a variety of causes it collects in such quantities as ultimately to burst forth in the form of springs. This hypothesis is rendered probable, not only from the nature of the climate, the character of the streams themselves, and the geological formation of much of the country, but also from the fact that within the last twelve years, on the Gawler plains and in many other places, springs have burst out and formed streams that now flow the year through; and there are numerous spots, both on the plains and the mountain tracts, which may generally be known by a small circular patch of deep-black coloured mould, where, if the earth is removed to the depth of one or two feet, water issues forth in the form of a spring. Also, wherever mining operations have been carried on, immense accumulations of water have been reached at depths of one to twenty fathoms. At the Burra Burra mine there is a curious subterranean

stream, of considerable volume, constantly flowing, and whence it comes and whither it goes is an unsolved mystery.

Hitherto no regard has been paid to the geognostical situation and the chemical composition of the common or perennial springs of South Australia; and their temperature has in no case been noticed, although a knowledge of this fact is illustrative not only of the mean temperature of the climate, but also of the elevation of the land above the level of the sea.

Wells.—Until within the last four years, the deficiency of surface water prevented the occupation of very many otherwise valuable districts; now, however, experience has shown the colonists that, in the absence of creeks and surface-springs, sufficient water for all practical purposes can be always procured by sinking wells to a moderate depth. Many of the squatters at York's peninsula, Port Lincoln, and other places, obtain water for their sheep solely from wells, and most of the farmers and the inhabit-

ants of townships and villages depend on no other supply; indeed, throughout the colony wells are very general, and of vast importance.

The depth at which water is obtained by sinking wells varies from 10 to 80 feet; 20 feet may be considered as the average depth. At Port Adelaide there are two wells, about 20 feet in depth, which supply excellent water, in sufficient quantity for the wants of the inhabitants and all the shipping which frequent the port. These wells are situate on Le Fevre's peninsula; and although they are merely holes dug out of the sandy soil, with a rough wooden platform over their mouths, on which the labourers stand, and raise the water by working common iron pumps, they are always entered in the statistical returns of the province among the manufactories, under the high-sounding appellation of "water-works!" I mention this as an illustration of the very simple establishments usually designated in the official statistics of the colony as manufactories; and I do so because I know that such statements, issued as they are

by the colonial government, have grossly deceived many individuals, who little dreamt that to make three or four pounds of imitation snuff in the course of a year, by grinding tobacco in an old coffee-mill, and then pulverising it by hand between two stones, constituted a snuff manufacturer; yet, in South Australia, such is the case.

Lakes and lagoons, in the colony we are describing, are generally shallow swamps, of no considerable size; most of them are fresh, but some are salter than the waters of the ocean. Lake Victoria, originally named Alexandrina, is formed chiefly by the waters of the Murray river, which runs into its northern limits in 35° 18′ S. lat. This extensive sheet of water is about 27 miles in extreme length by 23 in breadth, and from 6 to 18 feet in depth. Its waters, near the embouchure of the Murray river, are fresh, but towards the sea they become brackish, and ultimately perfectly salt. The lake communicates with the ocean at Encounter Bay by Port Pullen, a channel a

quarter of a mile in breadth, and varying from 6 to 15 feet in depth.

On the west of this channel is the Goolwa, an expanse of water into which Finnis river and Currency Creek flow, and which contains several islands. The largest of these, Hindmarsh Island, consists of about 19,200 acres of good available land; the channel on the north of Hindmarsh Island is about ten miles long by one broad, and 17 feet in depth. There are three other channels on the east and south of the island, all very shallow.

In Port Pullin there is generally a high surf and bubbling sea, caused by the swell of the Southern Ocean meeting the waters of the lake, which, when the Murray river is flooded, rush forth with great violence. Port Pullin was so named in compliment to the adventurous Mr. J. W. Pullin, marine-surveyor, who, in May 1841, navigated the cutter 'Water-witch' (which at that time drew six feet water) right through its narrow passage across Lake Victoria, and up the Murray river as high as Moorundi. Prior to

this daring exploit the channel had been deemed impassable from the melancholy circumstance of Judge Jeffcott, the first judge of the province, and Captain Blenkinsopp, with two of the boats' crew, having found a watery grave while attempting, in 1837, to pass from the ocean to the lake. Indeed, the passage is altogether too dangerous to be of any practical utility, although, as Lake Victoria appears to be gradually filling up, future generations will probably see its expansive waters confined within a comparatively narrow bed forming a continuation of the Murray, deep and navigable to its sea-mouth.

The Bremer and the Angas, two small rivers, flow into the north-west of Lake Victoria; and to the south-east of the lake, and connected with a deep, narrow channel, is another lake, discovered by Mr. Bonney, and named Lake Albert, which covers an area of 65 square miles, varies in depth from 4 to 10 feet, and contains water brackish but usable.

The line of coast of Lakes Victoria and Albert, is estimated at 155 miles; on every

part of which, even where the water of the lakes is brackish or salt, excellent fresh water can be obtained at all seasons by digging to the depth of a few feet.

The fresh water lakes chiefly constitute the backwaters of the rivers, in which case they prevent the floods of the rivers from rising above a certain height, and when the rainy season has passed by they are speedily dried up.

Salt lakes exist in Eyria peninsula and many other places; they, as far as known, are quite unconnected with springs, and many of them are supplied only with water from the torrents of rain that inundate the country during winter. It appears probable, that they imbibe their salt solely from the earth, which, in their immediate vicinity, has ever been found highly saline. The heat of summer generally evaporates their waters, when their beds are found dry and covered with salt crystals to the depth of several feet. Their chemical composition has in no case been ascertained; the crystals

from several which I myself met with, had all the appearance and taste of chloride of sodium (common salt) of great purity.

Cataracts. The falls of the Moriatta rivulet, near Mount Lofty, the only known cascade in the province, is in appearance rather pretty than imposing. The little stream, after flowing through a romantic rocky pass, precipitates itself, in three distinct silvery showers, from a height of about sixty feet, into a deep pool below, whence it flows onward in a direction towards the Adelaide Plains.

CHAPTER IX.

Adelaide—The Aborigines—The Port—The counties of South Australia.

THE most settled portions of the province have been divided into counties, eleven in number; of these eight are on the east and north-east of St. Vincent's Gulf, two are on the coast at the south-east boundary of the province, and one on the western coast of Spencer's Gulf. They are as follows:

Adelaide county, containing the capital and the chief harbour of the colony, is bounded on the west by the Gulf of St. Vincent, on the south by the county of Hindmarsh, as far as

Mount Barker, thence by a line continuing along the main range to the division of the waters between the Gawler and the Rhine, and following the Creek Moorooroo (Jacob's Creek), to its junction with the Gawler, that river then forming the northern boundary to the sea-shore, not including, however, the portion of the Gawler special survey laid out on its left bank.

The capital of South Australia comprises two towns, divided by a belt of land of about a mile in width, which has been reserved for the health and recreation of the inhabitants, and through which the Torrens flows. These towns, situate on the Adelaide Plains, about midway between the northern and southern extremities of Adelaide county, are collectively named the city of Adelaide. The town on the south of the Torrens is the established commercial division of the city, and the seat of the government. It is usually designated Adelaide by the colonists, in contradistinction to the smaller, but more beautifully situated division of the city, on the north of the Torrens, known as North Adelaide.

The city of Adelaide, named after the consort of William IV., has unfortunately been founded on a spot ill-suited for the site of a capital. It is more than eight miles distance from the nearest sea-port, on the banks of a river quite useless for purposes of navigation, and separated from the valuable Murray country by the Mount Lofty range, which at a distance of about five miles, forms a sort of crescent along the east, and partially round the south of the city, and thence extends to the northward and the southward far beyond the range of vision.

North Adelaide is laid out on a gently rising hill, well placed in regard to aspect and drainage, and consists principally of the private residences of the wealthy. It comprises 342 acres, besides 1 public square, and 27 principal public streets. The city on the south of the Torrens, sometimes named South Adelaide, is extensive; it contains 700 acres, 5 large public squares, and 30 leading streets which intersect each other at right angles, and have a respective width of 66, 99, and 132 feet; but its site is a comparatively low flat, with an

indifferent aspect, and which it would be difficult, if not impossible, to drain. Indeed it appears highly probable, that in future years a more eligibly situated city will rise up, and become the capital of the province, as Adelaide labours under disadvantages, both sanitary and commercial, too great for a wise energetic people permanently to endure.

The rise of this young city has been rapid. In 1827, its inhabitants dwelt in mud huts covered with canvas roofs, portable wooden houses brought from England, and tents, while more than one found a home in the hollow of a gum-tree. Fire-places were fortunately not essential; a huge pot swung over a blazing fire, served for all purposes of domestic cookery. The settlement resembled in appearance a gipsy encampment in the heart of a wilderness; and a roof being blown off, or a tent carried away by the wind, and the sleeping inmates suddenly exposed to the inclemency of a stormy night, were incidents of too common occurrence to interest or surprise the settlers.

Immediately the colonists became certain of

the site chosen for their city, every town section holder endeavoured to make his property the centre of business, and thereby enhance its value. Hence came an insane race in building and applotting: row after row of "pisé" or "wattle and daub" huts were run up with an alacrity truly astonishing, and in the scramble, the business of the town was conducted to Hindley Street, the worst and the most ill-chosen of the leading thoroughfares. The buildings were first covered with thatch, but shortly afterwards the stringy-bark forests were discovered, and shingled roofs became general.

In 1840 brick and stone were beginning to take the place of mud and straw, the pisé hut gave way to the limestone cottage, the wood tenement, and the brick "lean-to;" but the rapid growth of the capital received a stern check in 1841-2-3-4, the period of general depression. Its progress since, although lacking the almost infatuation which characterised its earliest years, has been remarkably steady and rapid, and the Adelaide of 1851, will, in regard to the number, the solidity, and the architec-

tural beauty of its public buildings, and private dwellings, vie with any city in the world of such recent establishment.

The Government House stands in an enclosure of about ten acres, tastefully laid out as a shrubbery; and but for the sentinel pacing outside, and the royal ensign floating in mid-air, presents the appearance of a small English country mansion. The Commercial Exchange, a beautiful building, in King William Street, contains the largest hall in the Australian colonies. The neat and commodious government offices, are built of stone, in a parallelogram, with an open court in the centre; and the Court House, and the new Bank of Australasia, built of colonial freestone, are large, substantial, and elegant. The Bank of South Australia, and the offices of the South Australian Company, are buildings creditable to the colony, and the new Post Office is a structure large and beautiful.

Most of the places of worship are edifices creditable to the colony. Trinity Church, the first church built in Adelaide, is a commodious stone structure, occupying a commanding site

at the west end of North Terrace. St. John's Church, in Halifax, is a large, substantial brick and stone building; so also is the Roman Catholic Church, which, with its public schools, forms a prominent object in West Terrace. The Congregational Chapel, in Pirie Street, is handsomely fitted, and the only place of public worship with a gallery in the province. The new Wesleyan Chapel, also in Pirie Street, is built of freestone in the florid gothic style of architecture. Of the other places of public worship, the most conspicuous, are St. Andrew's Church, in Grenfell Street; the Free Church of Scotland, in North Terrace; the Presbyterian Chapel, in Gouger Street; the pretty little chapel of the Christian Brethren, in Bentham Street; and the small, but elegant Jews' Synagogue, in Rundle Street. Christ's Church, a handsome structure, in North Adelaide, occupies the very summit of North Adelaide Hill, and may be seen afar off in every direction. But few of the churches or chapels are furnished with clocks, and not one in the province has an organ, or peal of bells. The only sounds in the colony that remind one of Old England's

merry chimes, are the soft ding dongs of the solitary little bells calling the Christians to their devotions on the Sabbath day.

Among the other public structures of Adelaide is the Church of England Collegiate School of St. Peter's, a substantial and extensive edifice, of superior architectural design; the Theatre, now closed; the Exchange Auction Mart, at the corner of King William Street, in Hindley Street; and the large frowning gaol, a gloomy looking pile, built in the extravagant early years of the colony, at an unjustifiable cost of £36,000.

Most of the shops and stores now built are extensive, ornamental, and substantial. Hindley Street, Rundle Street, and the more northern portion of King William Street, are the leading thoroughfares. They are lined on both sides with numerous warehouses, offices, and shops; some being small, insignificant, and ill-looking; while others are large and substantial, the shops being fitted with handsome fronts, plate-glass windows, extensive counters, and other superb appointments.

As early as 1842, a Municipal Corporation

was established by an act of the local government, but the measure being premature, the mayor, aldermen, and council, after a short existence, vanished, and the furniture of the Town Hall was seized by the landlord for rent. In 1846, the Corporation Act was repealed, and another passed, authorising the levying an assessment in aid of the expense of repairing the streets of Adelaide. The act of 1846, was amended, and continued, by ordinance, Nov. 13th, 1849; and although, in August 1849, an act was passed, empowering the Governor, upon the petition of the citizens, to again establish a corporation, the measure has not yet been adopted, and the local affairs of Adelaide, are at present administered by a Board of Commissioners, who have improved the streets, roughly fenced the squares, and devoted great attention to the enforcement of sanitary regulations, the funds for such purposes being raised by an assessment of one shilling in the pound on the rental of house property in Adelaide.

There is an excellent and well-regulated Cattle Market outside the city, and the horned cattle there sold are only permitted to be

slaughtered in the City Slaughter House, a fine commodious building, situated on the south bank of the Torrens, about a quarter of a mile westward of the city. By an excellent regulation, there are no attached burial-grounds to the places of worship in Adelaide, the dead being interred in the commodious cemetery, which is amply large, and situated on a well-chosen spot outside the western verge of the city boundary.

No regular system of lighting the city after dark is adopted; but, by a government regulation, a street lamp must be kept burning from sundown to sunrise over the door of each public-house; and these lamps are so numerous, that the principal streets present all the appearance of well-lit thoroughfares.

Adelaide is at present supplied with water from the Torrens. There are a few wells, but their water is brackish, and seldom used as drink water. The want of drainage is an evil much felt by the citizens. In the hot weather, when decomposition takes place quickly, the effluvia arising from the filth and offal thrown down near the houses, and from the innume-

rable receptacles of decaying animal and vegetable matter is most injurious, and if not remedied, may prove pestilential to the neighbourhood. The local legislature, however, contemplates establishing water-works, and constructing sewers; but the measures cannot be proceeded with until after the gold mania has subsided.

Four neat wooden bridges over the Torrens connect the two divisions of the city, which is surrounded for the average breadth of half a mile by a public demesne, reserved for the formation of public gardens. These reserves, known as the park lands, are tolerably well timbered; and although their ultimate advantages cannot be doubted, they at present add to the wild, straggling appearance of the city. Indeed, the aspect of the park lands is most un-English and wilderness-like. The wild, tortuous course of the Torrens, its uneven bed, here and there bestrewn with massive rocks and dead and dying trees, its banks all full of precipices and mis-shapen caves; the haggard, decaying appearance of the scraggy, half-burnt gum-trees, the boundless plains around, the

huge chains of mountains and barren sand-hills hard by, the twitter of the parrots, the piteous caw, caw, woohoohoo, of the crows, and the strange chirps of the myriads of insects, all render the scene most Australian, and far more imposing than the tiny gentry-parks of England.

The Adelaide tribe of the aborigines generally has one or more encampments on the park lands. They are poor and harmless, and very useful to the citizens as wood-choppers and light porters. Their noisy carrobbories at night, and occasional exhibition by day, are however somewhat annoying. They possess no sense of shame, wear few garments, and, but for the law, would walk the streets uncovered. One will have on only an old shirt, another an old pair of trowsers and a cap, a third perhaps a filthy tattered blanket, another only a coat, and so forth. Many of the women, or lubras as they are called, have no other covering than an old blanket wrapped round from behind under the armpits. They possess

little courage, and their cunning, although great, is, like that of a child's, easily seen through.

Like most savages, they cannot endure continuous labour, and when admonished for not following the example of the industrious Anglo-Saxon, they reply: "Too much workee no good, black fellow plenty gentleman, white fellow plenty workee, and the like o' that," to which they frequently add, "gi'e me penny buy 'bacco," for they are arrant beggars, and inveterate smokers. Their powers of imitation are great; they soon learn to jabber English, and delight in the use of profane oaths. As with the other aboriginal tribes, every attempt to civilize them has signally failed. There is yet to be seen behind the gaol the remains of a row of little huts built for their express use, and I was informed by the Adelaide schoolmaster of the aborigines, that the blacks who inhabited these huts, actually blocked up the doors, smashed the windows, and made their entries and exits through the window

holes. The huts were never cleaned out, and when they became dens of filth, swarming with vermin, they were deserted.

Port Adelaide, the haven where vessels with emigrants and stores from Europe are discharged, and where the bulk of colonial exports are shipped, is the chief port of the province, and situate in 34° 51′ S. lat. 138° 34′ E. long. on the eastern bank of Port Adelaide Creek, a safe harbour, sheltered from all winds, and flowing from St. Vincent's Gulf, inland, for a distance of about ten miles. The population connected with the shipping in the harbour, reside on the spot, and give to the place the appearance of a small town, but the only substantial buildings are the wharves and warehouses. Of these, those belonging to the South Australian Company are fine structures, built of stone, with accommodation for vessels to lie close to the shore as in our docks. The customs' house, and the government quay, are also extensive, and there are several large warehouses be-

longing to private individuals. Since 1849 several new wharves and warehouses have been built, a patent slip has been erected, on which vessels of 1000 tons may be raised; and repaired: the building of a substantial church, and a large theatre has been commenced; and the South Australian Company have proceeded with the formation of a commodious wet dock. The port also boasts some well-built private houses, two good rows of shops, and numerous public-houses.

Le Fevere's peninsula, a small tongue of land, stretching between the west bank of the Port and St. Vincent's Gulf, is sandy and scrubby. Indeed, the country generally in the immediate vicinity of the port consists principally of mangrove swamp, and barren or sandy flats, giving life only to salsalaceous vegetation. The soil, however, speedily improves in fertility on proceeding inland.

The road from the port to Adelaide, is about $7\frac{1}{2}$ miles in length and only railed in in some parts. It is macadamised for a

distance of about two miles from the port, and the remaining portion is in a state of nature. It traverses level plains, and its surface which is uneven and worked into deep ruts, is in summer covered with dust and drift-sand, in many places to the depth of a foot; in winter, it is boggy and quite impassable. At present most of the goods received in, and shipped from the colony are conveyed along this road in bullock-drays or carts, but a railway will probably shortly be established, as in 1850, an act for constructing it was obtained from the local council by the Adelaide City and Port Railway Company.

There are several villages bordering the Port road. Albert Town, situate one mile from the port, is small and straggling, and chiefly occupied by persons connected with the shipping. Further on, towards Adelaide, are Beverly, Bawden Prospect, Hindmarsh, and Theberton, all of which are fast rising into importance. They are principally inhabited by persons engaged in the carriage of goods, and by

brickmakers and labourers. Hindmarsh contains a steam flour-mill, the most extensive brewery in the colony, and many good shops.

The traffic on the Port road is considerable, and the public-houses are numerous. The vehicles for the conveyance of passengers are the Port carts; they resemble the common English chaise-cart in appearance, the fare is 1*s.* and the ride by no means agreeable. The driver urges on the horses—two or more in number, at a scampering pace, the cart all the time tossing, bouncing, and buzzing over the uneven ground so rapidly and violently, that the passengers are continually being bumped and jerked against each other, and to prevent being pitched out headlong, have to hug the rails and seats with an iron grasp.

Besides the villages on the Port road, there are within the limits of Adelaide county, those of Athelstone, Brighton, Brompton, Balhannah, Burnside, Cowandilla, Campbell Town, Chain of Ponds, Cheltenham, Dry-Creek, Enfield,

Echunga, Edward's Town, Glenelg, Glen, Osmond, Goodwood, Gumeracka, Hahndorf, Hope Valley, Houghton, Islington, Irish Town, Kilkenny, Klemzig, Kensington, MacGill, Mitcham, Montague, Montacute, Morphet Vale, Norwood, Newham, Nailsworth, Paynham, St. Leonards, Salisbury, Unly, Walkerville, York, and about a dozen others of less importance.

Of the above, Kensington, Norwood, MacGill, and Paynham, are pretty secluded villages, embosomed in trees, and situate between Adelaide and the foot of Adelaide hills. Walkerville and Irish Town, in the vicinity of North Adelaide, contain some good residences. Unly and Burnside are established on well-chosen sites with a pleasing aspect; and Glen, Osmond and Mitcham are picturesque villages, about four miles from Adelaide, on the first rise of the hills.

Klemzig, the oldest German settlement, is on the north bank of the Torrens, about three and a half miles to the north-east of Adelaide. The houses in this and most of the other

German villages, having been built by the refugees on the plan of those of their native country, differ remarkably in style from the buildings of the British settlers. The Torrens rises near Mount Torrens, and after receiving several tributaries from the glens between the spurs on the Mount Lofty range, wends in a westerly direction across the Adelaide plains, and is lost in the Reed Beds, a marshy district, where reeds abound, about four miles from Adelaide, and near the sea.

Like other Australian rivers, the Torrens in winter becomes a rushing torrent, often uprooting trees, and dragging with it all that it meets. It has more than once, in the neighbourhood of Adelaide, overflowed its banks, washed away bridges and houses, and tracked for itself a new course. At these times, the roaring and hissing of the turbulent waters may be heard miles away. As spring approaches the waters subside, and by the middle of summer all that remains is an

irregular chain of pools, the water just trickling in tiny streams from pool to pool, along the otherwise dry river-beds.

The Torrens is unnavigable, even for small boats; it contains no fish worth catching, and its bed abounds in titurated quartz mica, schist, felspar, hornblende, and mica slate, mingled with iron and other metallic ores. Believing it to be auriferous, I explored its bed, and after some perseverance, succeeded in collecting some grain-gold; and the yield of the metal, although trifling, was in my opinion sufficient to warrant a belief, that by a well-conducted search, rich deposits may be found in certain portions of the river-bed.

Glenelg and Brighton must be mentioned as two picturesque marine villages, on the coast of Holdfast Bay, to which the inhabitants of Adelaide frequently make excursions after the heat of the day is over. The Sturt flows into the sea at Glenelg; and about twelve miles further southward the

Onkaparinga, after pursuing a tortuous course from the Mount Lofty range, and receiving several tributaries, disembogues into St. Vincent's Gulf. The thriving township of Noarlunga, which lies on the border of this stream, about a mile from its mouth, boasts a handsome stone church, an extensive steam flour-mill, a substantial bridge, several large stores, and numerous other neat and commodious buildings. The river winds round the township in the form of a horse-shoe; and from its sea-mouth to this point is navigable for small craft. It affords fine fish, and is auriferous, but only in a small degree.

The agricultural village of Willunga is delightfully situated, thirty miles southward of Adelaide, at the foot of the hills, which here trend in a south-westerly direction to Mount Terrible at the coast-line, and form the southern boundary of Adelaide. County Hahndorf, with its plodding German population, lies on the great eastern road; and

three miles further eastward, on the ridge of the range, is the secluded little hamlet of Balhannah.

On the west of the Mount Lofty range, whose features have been before mentioned, there are extensive plains and tracts of low, undulating country. From Willunga to O'Halloran Hill, about eleven miles southward of Adelaide, the lowlands between the ranges and Gulf St. Vincent are undulating and hilly; and thence to the Gawler, a distance of about forty miles, there is a district of level grassy plains, in some places lightly wooded, but generally quite destitute of timber. Some of these plains are upwards of eighty square miles in extent; and they chiefly retain the names applied to them by the early settlers, prior to the division of the country into counties and hundreds. Thus, in the neighbourhood of Adelaide we have the Adelaide plains, northward of which lie the plains of Salisbury, Para, Gawler, &c. These divisions, however, are all arbitrary, used only

on ordinary occasions, and seldom mentioned in government deeds or legal documents.

Throughout this county, agricultural villages are met with in every direction; much of the land is fenced in and tilled, and both on the hills and the plains the work of the husbandman is apparent. The roads are traversed by heavily-laden teams; and flocks of sheep, herds of cattle, and numerous swine and poultry, occupy the uncultivated wilds, and mark the affluence of the established settlers.

Gawler county is bounded on the south by the county of Adelaide, as far as the eastern extremity of the Gawler special survey (all of which it includes); thence by a line following round this survey to the main north road, and running along this road to the crossing of the Wakefield river: bounded on the north by this river, and on the west by the coast.

Gawler county consists generally of low, undulating, moderately wooded, grassy tracts, with a thick belt of scrub and pine forest along the shore of Gulf St. Vincent. It is chiefly

occupied by cattle pastures, but these are most extensive along the fertile flats, and on the banks of the Gawler; a stream which rises in the Barrossa range, receives the waters of the North Para and other smaller creeks, and flows along the southern boundary of the county into the sea. It is unnavigable, and slightly auriferous.

Gawler Town, the chief town in the county, lies on the south bank of the Gawler on the Great North Road. It is 25 miles from Adelaide, and contains a handsome church, a steam flour-mill, numerous dwelling-houses and shops, and several good inns, one of which, known as the "Old Spot," is very extensive, being capable of affording accommodation to 100 travellers. All the traffic from the cattle-station and mines in the north, both to Adelaide and to Port Adelaide, pass through this frequently bust'ing town.

In September, 1850, all the waters at the head of Gulf St. Vincent, northward of Sandy Point on the eastern shore, and Mangrove Point on the western shore, were proclaimed a

part of the province, under the name of Port Wakefield. The shores of the harbour are generally shallow mangrove swamps. The mouth of the river Wakefield, which flows from the eastern shore into the northern extremity of the port, has been dispersed, and on its southern banks a township has been laid out, where houses and wharves have sprung up as if by magic. Indeed, this rising port promises to become shortly a formidable rival to Port Adelaide. Already most of the copper ore from the northern mines are shipped from it; and on the natural banks of the Wakefield, which are serviceable wharves, all the coal for the smelting company at the Burra Burra is landed.

Light county is bounded on the west by the county of Gawler, on the south by the county of Adelaide, as far as the dividing ranges between the Gawler and the Rhine; thence by a line following the main range to the north, past Mount Rufus, to above the sources of the Light, in the parallel of about 33° 50′, turning

round the ridge on the west bank of the Gilbert in a line, nearly direct upon Mount Hurrocks, until it meets the eastern sources of the Wakefield, and running along this river to the crossing of the northern road.

Before the discovery of the Kapunda copper mine, Light county was deemed too hilly and scrubby, and too far from Adelaide, to be of value for tillage. It nevertheless now contains several important agricultural and mining villages. Angas Park, the property of Mr. G. F. Angas, about seven miles long and three broad, is one of the most picturesque and valuable agricultural tracts in the colony. Lynedoch Valley and Salam Valley are spots rich and beautiful. The German villages of Labethal, Benthany and Langmeil, romantically situate at the foot of the Barossa range, are highly-favoured agricultural districts; and Angeston, a township built in a lovely valley at German Pass, boasts a good inn, several schools and stores, and outside the town a neat church, with a cemetery inclosed by stone walls.

The Kapunda, the Greenock Creek, and several other mines, are in this county; and the cottages at the village near the Kapunda mine are built of stone, tinged with copper, which gives them a singular but not unsightly appearance. The Heranian and the Belvedere ranges, in the neighbourhood of the Light, are rich in valuable minerals, and the banks of the river itself and the valleys around are highly fertile. Northward of the Light, where the bush commences, there is much open fertile land, that would require no clearing prior to cultivation, but which is now occupied only as cattle pastures.

Stanley County is bounded on the south by the counties of Gawler and Light; on the east, by the Main Range, as far as the parallel of 33° 20′, and then by the course down of the Broughton River till about due north of the Wakefield; a line connecting these points forming the western boundary.

The mountainous portions of this county are rich in metals, and the plains and valleys

on the east of the ranges are remarkably open, free of timber, and well clothed in grasses and orchideous plants. The Broughton and Wakefield are never-failing streams, but the soil on the banks of the Broughton is mostly barren and stony, giving life but to *Spinifex*, a kind of coarse prickly grass.

On the south-eastern portion of this county is the world-famed Burra Burra copper mine, situate on the Burra Burra Creek, about one hundred miles from Adelaide. It occupies about three hours to see through the shafts and galleries of this richest of copper mines. Some of the cuttings are through solid blocks of ore, which brilliantly glitter as you pass with a lighted candle, while others are formed in veins of malachite, and from their rich variegated green appearance, are not inaptly called by the miners "fairy gardens." Near the mine, but on the opposite side of the Burra Burra Creek, are the Patent Copper Company's extensive smelting works, which

when in full operation give employment to about 1,000 hands.

The principal townships in Stanley County are Kooringa, Redruth and Aberdeen, situated in the neighbourhood of the Burra Burra mine. Kooringa contains several places of worship, some schools, good inns, and showy shops and stores. There is a resident magistrate, and lately, an infirmary, supported by voluntary contributions, has been established; about 2,000 persons, miners and others, dwell in excavations in the banks of the Burra Burra Creek. These homes are rude, but far from comfortless, shutting out, as they do, the powerful rays of the Australian summer sun more effectually than the ordinary built cottages.

To the east of Light County lies Eyre County, bounded on the south by the county of Sturt, on the east by the Murray (including the sections laid out on each bank) as far as the great bend: from thence, by a direct line

to the north-east angle of the county of Light, which forms the eastern boundary.

Eyre County consists, for the most part, of extensive flats, occupied by dense scrub, for a width in many places of twenty miles, and known as the Murray Belt. But between the mountain range and the scrub there is excellent pasture land, and also close upon the banks of the Murray the soil is fertile, and depastured by sheep and cattle. North of the Great South Bend of the Murray the scrub almost wholly disappears, and the open brush spreads out in enormous plains, from 65 to 80 miles in length, from north to south, and which extend to the eastward beyond the limits of vision. According to Governor Young, this extensive tract is likely to be shortly occupied over its entire space, in consequence of the recent discovery of good water beneath the surfece. With the exception of these plains and the country verging on the Murray, the whole district is very destitute of water. The soil is mostly weak, porous and sandy.

There is a government station at Moorundi, on the west bank of the Murray, about twenty-seven miles south of the Great Bend, and from which a dray road has been formed through the scrub to Gawler Town. This station was formed by Governor Grey in 1841, to check the frequently destructive and fatal collisions then constantly occurring between the settlers coming overland with stock from New South Wales, and the Aborigines, between whom so deep a spirit of revenge had been kindled, that the conduct of the overlanders was frequently highly censurable, and the savages, although suffering severely from every contest, resolutely endeavoured to prevent all parties with stock from passing along the line of the river. Mr. Eyre, who by kindness had acquired power over the Aborigines, was appointed resident magistrate, and by his humane exertions and the occasional distribution of blankets and food among them, the good-will of these savages has been obtained, and their occasional services, now freely rendered for

a little food or tobacco, are a great acquisition at the Murray stock stations. Mr. Eyre has been succeeded at Moorundi by Mr. Scott, who enjoys the good-will of the Murray settlers and the veneration of the Aborigines.

The names and limits of the three counties to the south of Eyre county are as follows:

Sturt county, bounded on the south and east by the county of Russell, as high as its termination in latitude about 34° 50′, and thence by the Murray (including the thirty-nine sections) to the parallel of about 34° 32′ due east of the dividing ridge between the Gawler and the Rhine, a line between which points, forms its northern limits, bounded on the west by the counties of Adelaide and Hindmarsh.

Hindmarsh county, bounded as follows: From the termination of the main range in St. Vincent's Gulf, below Mount Terrible, by the coast-line to the south, round Cape Jervis to the sea outlet of the Murray; thence by the south-east shore of Mundo Island in Lake Vic-

toria to Point Sturt on the northern shore of the Lake; thence by a direct line across the Lake to the mouth of the Bremer; thence by that river up to the crossing place of the eastern road above Langhorn's station; thence taking a line about north 20° W. till it strikes the main range at Mount Barker, continuing along the eastern range (inclosing the Mount Barker survey) to Mount Magnificent; thence by a course about north-west to the top of Willung range, where it is crossed by the southern road, and following the ridge to the sea below Mount Terrible.

Russell county, bounded by the coast-line from the sea outlet of the Murray to the spot opposite where the Salt Creek empties itself into the Coorong; by this creek to the rocky ridge at its source, and thence by taking a line due north till it cuts the Murray, as far as Pomunda; thence by a straight line across Lake Victoria to Point Sturt.

Near the mutual boundary of the counties Hindmarsh and Sturt is Mount Barker, an ele-

vation seen far away in the interior, and which serves as a landmark for overland parties from New South Wales to steer by. The country around Mount Barker, known as the Mount Barker district, is the finest and most settled rural district in the territory under notice. It is a hilly table-land, abounding in small, open, fertile valleys, with a rich alluvial soil, so free from stones and timber that no clearing is required before ploughing. But nearly all the good land in the district is already occupied, and many of the uncultivated tracts are barren stony ranges, too poor even for cattle pastures. A disadvantage to the district is that the road to Adelaide is through a mountainous country, and in many places so uneven, precipitous, and dangerous that not unfrequently a bullock-dray loaded with produce is upset, and one or more of the bullocks killed by falling into a ravine below; while after heavy rains, the road is for weeks together quite impassable.

Mount Barker township contains five places of

public worship; a court-house, where a bench of magistrates sits once a-week; a police station; a steam mill; several schools, inns, and stores, and numerous workshops and private dwellings.

Echunga, Nairne, Macclesfield and Strathalleyne, are pretty villages in the vicinity of Mount Barker, where the useful trades are carried on, and where groceries, drapery, ironmongery, and all ordinary necessaries, can be bought at a small advance on Adelaide prices.

The country eastward of Mount Barker, extending from the first of the ranges to the Murray, is like that of Eyre county, flat, and for the most part a sea of impenetrable scrub, badly watered, and with soil of a porous sandy nature. All along the banks of the Murray, the land is occupied as sheep and cattle runs, the scrub in the vicinity being no drawback, as cattle like it and thrive upon it. The township of Wellington, laid out on the banks of the Murray, is about seven miles from Lake Victoria, and at present only occupied as a

station for police, and a sub-protector of Aborigines. A government ferry, to convey passengers and goods across the Murray, is established at Wellington; the tolls are moderate, and the ferryman is bound by penalty to perform the duty.

Immediately to the eastward of the Murray, the country is similar in its geological formation, soil, and productions, to the scrubby country to the westward; much of it is, however, occupied as cattle pastures.

On the borders of Lakes Victoria and Albert, there are at least 80,000 acres of good tillable land, which at present is but partially occupied, and that only as pasture land. To the eastward of the lakes, the ground is flat, barren, and sandy; but it gradually improves both to the southward and westward, where, in some spots, it is picturesque and fertile. The hills in the vicinity are generally well-wooded.

The valley of Currency Creek, a stream

flowing into the Goolwa, contains but little good land, and is bounded both to the northward and the southward by barren scrub. There is a great sandy basin near the head of the creek, which—excepting to the southward, where it falls into the valleys of the Hindmarsh and Currency Creek—is surrounded by barren stony hills, about 700 feet in elevation.

Encounter Bay, the chief whale-fishery of the colony, and the scene of many daring exploits, hair-breadth escapes, and dreadful disasters, is bluff, mild, and rocky. The surf in the bay is terrifically great, and monster rollers rise to the height of eighteen feet, in one continuous line to the extremity of vision, and only subside after the wind has been blowing from the north for several days, which rarely occurs, except in summer. From the summit of Rosetta Head, a lofty headland, forming the western side of Encounter Bay, where the whalers watch for their prey, the scene is wild

and forbidding, the sight and sound of the roaring breakers, the rumbling rollers, and the hissing spray filling the hearts of all but the hardened whaler with awe. The anchorage in Encounter Bay, and also in Rosetta Harbour, is deemed useless for square-rigged vessels. Port Elliot, in the immediate neighbourhood, is, however, according to Captain Lipson, a perfectly safe anchorage. The Encounter Bay district is a beautiful and fertile country, abounding in rich valleys, romantic glens, and undulating tracts. The climate is genial; and agriculture, wherever land is available, has returned good profits. The houses at Encounter Bay are too scattered to be deemed a village or township; the settlement, however, contains a place of worship, one windmill, and one steam flour-mill, a school, a post-office, a store, and several substantial brick or stone dwellings.

The establishment of the Encounter Bay whale-fishery comprises about a dozen buildings,

used as sleeping berths, stables, boat-sheds, and workshops. The whole place is strewn with the gigantic bones and portions of the carcases of the huge animals caught, and is the resort of myriads of gulls and cranes. During the whaling season, a scene of wild confusion and bustle prevails. The whalers themselves are a rough, daring set of fellows, who brave deadly dangers with impunity, and are as much at home in their frail boats on a long and dangerous whale-chase as a lord at a levee.

Eastward of the beautiful valley of the Inman, which abounds with rich dells and lovely slopes, the country from Cape Jervis to Rapid Bay is romantic, but generally poor and scrubby. To the northward of the valuable copper and lead mines at Rapid Bay, are the fertile undulating valleys through which the Yankalilla, Carracallinga, and Myponga flow into Gulf St. Vincent, and which are for the most part occupied as cattle pastures. Between the valley of the

Myponga and Mount Terrible the country is wild, scrubby, and useless for agriculture; and the Aldinga Plains, although fertile, are too deficient in surface-water to be yet located.

Partially Settled and Unsurveyed Districts.—The eight counties enumerated in the preceding pages comprise the chief settled portions of the province, next to which the south-eastern district contains the largest quantity of known good land, and the greatest amount of stock. It is bounded by the counties of Russell, Sturt, and Eyre on the west, the Murray on the north, the province of Victoria on the east, and the ocean on the south. It is the most recently-settled district, and it has advanced in amount of stock and substantial wealth as compared with population, more rapidly than any other. The most available country is comprised in the two following recently formed but important counties:

Gray county, bounded on the east by the meridian-line of 141 from the sea-coast to where

it is intersected by the parallel 37° 20′ S.; on the north of said parallel of 37° 20′ S. lat., from its intersection with the 141st meridian to the sea-coast.

Robe county, bounded on the north by the parallel of 36° 54′ S. lat., extending from the sea-coast to where it intersects the 141st meridian; on the east by the said meridian; on the south by the northern boundary of the county of Grey, and on the south and west by the sea-coast.

These counties comprise much level country. Communicating with the south-eastern portion we have the Coorong, a salt lagoon connected with Lake Victoria, and running for about 90 miles parallel with the sea, from which it is separated by a peninsula of sand, consisting of a monotonous succession of white, sandy hummocks 300 or 400 feet in height. Along the inland shores of the Coorong there is a belt of grassy she-oak hills intersected with plains of good soil, where excellent water may be obtained

at a depth of a few feet. This belt is bordered to the north-east by a sandy desert, which stretches inland as far as the country has been explored.

From the south-eastern extremity of the Coorong, a succession of salt swamps, separated by grassy, limestone hills, timbered with she-oak or stunted stringy-bark, stretch along the coast to Lacepede Bay, and thence to the eastward as far as Mosquito Plains, which lie within a few miles of the eastern boundary of the province. These plains run north and south for a distance of 40 miles, and being but little elevated above the level of the sea, they are partially under water during the rainy season.

Their soil resembles that of the Murray flats, and gives life to rich grasses, on which thousands of sheep and cattle are depastured during summer, while the grassy hills by which they are bounded, afford dry feeding ground at other times. To the eastward, these plains are bounded by limestone hills, in which

are numerous caves, having numerous chambers, connected with each other by narrow passages, and containing an abundance of stalactites, which, when burnt, produce a fine white lime. To the northward of Musquito Plains is the Patiara country, once so celebrated for the ferocity and cannibalism of its Aborigines, but now occupied by numerous settlers, as cattle pastures. It contains much rich grassy land, separated by belts of scrub. North of 36 40′ S. lat., commences the dense Mallee Scrub, which extends to the northward as far as the Murray. Every attempt to explore this scrub with a view to find good pasture land has failed, as the few isolated patches of open country discovered have proved unavailable, for want of water. There is much fine land and pleasing scenery in the neighbourhood of Rivoli Bay, an exposed unsafe haven, to the south and east of which the country is of volcanic formation, being a continuation of the series of hills that commence near Geelong, in the province of

Victoria. The most prominent eminences in this portion of the coast, are the extinct volcanoes Mounts Schank and Gambier.

Mount Schank, a hollow cone, about 12 miles from the eastern boundary of the province, and near the sea, rises almost abruptly from a rich, well-wooded plain, to a height of about 800 feet. The outside of the mountain is clothed with rich grass, dotted over with she-oak trees. On reaching the summit, three extinct craters, or large deep basins, lined with cellular matter, present themselves. The largest basin is nearly half a mile in diameter, with a rim 7 or 8 feet in breadth, and its depth is so great that the trees luxuriating on rich soil in the bottom, appear from the heights above like dwarf shrubs; indeed, the scene presented is most enchanting, curious caverns of fantastic shape are carved in the precipitous walls, while, in the depths below, tiny meandering water-courses, little lakes, and forests, and miniature hills and plains, carpeted in verdure of

velvetty smoothness, realize fancy's picture of a fairy world.

Mount Gambier, an extinct volcano of an oblong form, with several craters containing deep lakes, is about 900 feet high, and situate about 7 miles to the northward of Mount Schank. The central and largest crater of this eminence is divided into two by a gentle sloping hill that runs across it in a direction nearly north and south. On the east of this hill, inside the crater, is a deep still lake, about a quarter of a mile in length, and surrounded by snow-white cliffs of coral limestone, and precipitous walls of black and red lava, that render its waters inaccessible to all but the wild ducks and other water-fowl that abound there. The western portion of the crater has several deep lakes of excellent fresh water, and its sides rise up in terraces like the walls of an old castle, and are occasionally indented with grotesque caves of red lava. The Mount Burr range rises to the height of 1500 feet,

and is connected by a low ridge with Mount Gambier.

The soil around these hills, and other minor ones of a similar character in the same neighbourhood, is of the richest possible description, being the result of decomposed lava. The process of decomposition is still going on, and lumps of lava may be picked up, the outer surface of which has mouldered away, whilst the under side, uninfluenced by the action of the atmosphere, preserves the characteristics of its igneous origin. There are also, in many places, numerous small deep lakes, or wells of good fresh water, some of which are accessible for cattle, and others have perpendicular walls of from 40 to 100 feet high. One of these wells has a depth of water of 100 feet close to the side.

Nearly the whole of the south-eastern district is occupied as cattle pastures, principally by settlers from Victoria. The volcanic country in the neighbourhood of Mounts Schank and Gambier, is, however, admirably adapted for

agriculture, horticulture, or the growth of the grape-vine, and for such purposes is yet untouched.

Eyria Peninsula.—The capabilities of this wide tract of country, situate on the west of Spencer's Gulf, and commonly known as Port Lincoln, are at present but little known. The partially settled country, on the extremity of the peninsula, between Spencer's Gulf, and the Great Australian Bight, comprises Flinder's county; which is bounded on the south by the coast between Cape Wiles and Cape Catastrophe; on the east by the coast from Cape Catastrophe to the northern limit of South Bay, including all the islands on the coast between these parallels, as well as William's and Gambier's islands, the northern and southern limits not being yet defined. The settlement of Port Lincoln, formed in the early history of the colony, and at that period recommended as a suitable place for the capital of the province, is the only township in the

whole of Eyria Peninsula. It is now almost deserted, and many of the buildings are fast falling to decay. Indeed, the neighbouring county, although formerly reported as being highly fertile, is for the most part poor and worthless. My own experience obtained by a visit to the vicinity, fully confirms the views of Governor Young, who, in a report drawn up in 1850, says:—

"Of Port Lincoln, it was remarked, on its discovery in 1802, that the excellency of the port might seem to invite others to the establishment of a colony; but the little fertility of the soil afforded no inducement."

Nor has it, in my opinion, at the present time any other prospect of becoming a populous or thriving settlement, than that which the recently ascertained mineral character of the country presents. The land is for the most part poor and rocky, the trees scrub and she-oak, the water generally scarce and brackish. There is, however, a spring of good fresh

water below high-water mark, on the beach, near the present township. Boston island, where Flinders searched in vain for water, is still reputed to be destitute of it, although it is rather a marvellous fact that a flock of 1200 sheep at present thrive there.

A speculative township, extending to the preposterous length of about five miles, was originally laid out along the margin of Boston Harbour, (the adjacent bay is Port Lincoln Proper, and is uninhabited) and at the farthest extremity of it, on an eminence overlooking both bays, was laid the foundation stone of an intended church, which, however, was never proceeded with, and is now only alluded to by the settlers as a record of the exaggerated and hitherto disappointed expectations of the early purchasers of land, many of whom are residents in England. I may add, that the site of the settlement is a mere sand hole, and that deep beds of sand is also the characteristic feature of the country for several miles round.

Lieutenant-colonel Gawler in his valuable geographical and geological observations, divides the surface of Eyria Peninsula, which is nearly an equilateral triangle, into three other great portions. The mountainous tract; the lower undulating country; and the hill country. The first, as already noted, is a table-land of about 1300 feet in elevation above the level of the sea. Its width from south-west, to north-east, is from twenty to twenty-five miles. The numerous spurs and ridges that rise from 300 to 700 feet above the table-land in much confusion, but with the prevailing direction towards Spencer's Gulf, are generally grassy, and sprinkled with she-oak. The water-courses between these ridges are frequently lined with small she-oak and pine, from 25 to 30 feet in height.

The surface of the low undulating country, which extends from the bases of the great table-land to the commencement of the hill country, consists of gentle elevations, rising not more

than 300 feet above the level of the sea. It is a poor scrubby region. The drainage of the southern slopes of the mountainous table-land runs through it, and on the eastern side of the peninsula joins the sea in Driver's Bay in latitude 34°. It is there skirted by several extensive but shallow salt lagoons, frequently dry, and clothed with salt-water tea-tree.

The hill country commences in about latitude 34′ 10°, and occupies the tongue of the peninsula, including Port Lincoln and its neighbourhood. It consists of elevations from 600 to 1000 feet in height, having common courses to north-east and south-west, with strong deviations to north-west and south-east. The northern sub-division of these ridges for a distance of forty miles is well grassed. The same character of country extends towards Cape Catastrophe, but to a more limited extent. The hill country contains more than an ordinary proportion of fine valleys, that of the Tod is sixteen miles in length, and has numerous

lateral branches. Another, six or eight miles to the westward of Burton Bay, which drains into the head of Port Lincoln · Proper, is a succession of broad swamps, some of which are now available for agriculture, and the most humid of them may probably be made so, their soil being an alluvial deposit of excellent quality. In the hill ranges there is a considerable quantity of permanent surface-water. The grassy hills and vallies are sprinkled with fine she-oak trees, and as the scenery is monotonous and dreary, few Encalypti occur.

According to Mr. Eyre, who explored this district in 1839, the country along the coast, from Point Drummond, latitude 34° 7′, to about latitude 33°, consists of low she-oak hills, of limestone formation, grassy, but very stony, and destitute of water, and which extend but a few miles inland, and are backed to the eastward by a level scrubby country. From latitude 33° to as far as the 133 parallel of longitude, the country along the coast, to the

very water's edge, is one mass of dense and almost impenetrable scrub, quite destitute of water. This dreary region extends all round Streaky Bay, Smoky Bay, and Denial Bay, the only visible improvement being that the country a few miles back from the coast becomes gradually more elevated, and that the plains, or small openings, are more numerous and larger in size. The country, in a direction due east from Streaky Bay, to the base of the Gawler Range, is low, level, barren, and scrubby, with occasional heights of granite, in the clefts of which water deposited by the rains is occasionally met with. Along the southern base of the Gawler Range, and thence to the head of Spencer's Gulf, extends a wild desert, which, with the exception of prickly grass growing upon sand-ridges, and several salt lakes, is without vegetation or water.

A good tract of country was discovered by Mr. Drake, extending between Mount Greenly and Mount Wedge, a distance of forty miles, all

of which is now occupied as cattle pastures. Happy Valley, Cowan's Vale, and Smith's Valley, in the neighbourhood of Port Lincoln, contain good grassy pasture-land.

The country to the north of Gawler Range, although a third of the whole territory of South Australia, is altogether unexplored. That it is not of a hopeless character appears probable, as Mr. Drake, who crossed the range and penetrated to latitude 32° 18′, discovered there a fertile valley. Mr. Drake was unfortunately killed by the natives during his return. Mr. Theakston, his assistant, continued his journal, and mentions that thirty-five miles from Port Lincoln there is as good a country as any in the province, and that what he passed over would feed 100,000 sheep and many hundred cattle. Since the death of Mr. John Horrocks, who attempted to explore the country to the north of Mr. Drake's discoveries by the aid of a camel, and was killed by the accidental discharge of a gun, no efforts have been made

to penetrate this vast unknown territory although there is every reason to believe that much of it, especially in the neighbourhood of Western Australia, is valuable fertile land.

Eyria Peninsula affords a new, and doubtless a fertile field for the mineralogical explorer. The formation of the mountains is mostly platonic; two copper mines are now being worked in the neighbourhood of Port Lincoln; and it appears to me probable that gold-platinum, and diamonds are to be met with in abundance in the neighbourhood of the Gawler, the Marble, and other adjoining ranges.

The harbour of Port Lincoln, which, from its extent, security, and ease of access is deemed one of the finest havens in the world, is situate on the northern shore of Spencer's Gulf, near the southern extremity of Eyria Peninsula. It consists of three branches: Spalding Cove, Port Lincoln proper, and Boston Bay. The approach to the harbour is fine, amidst islands

and capes; but the main land has such an air of utter desolation, that it sensibly impresses one with a kindred feeling; the interminable black casuarina, or she-oak trees, which usurp every glade and dell, hill-top and plain, cast a sombre effect on the scenery, which no natural objects can counterbalance. One of the first objects that strike the eye, is Stanford Hill, a bold eminence, graced with the monument erected in 1841, to the memory of the intrepid but unfortunate Flinders, by Lady Franklin, wife of Sir John Franklin, who began his meritorious career under Flinders, and whose presumed loss in the Arctic seas the nation now mourns.

York Peninsula is a level tract of country, consisting of alternations of dense scrub and open grassy plains. The plains are wholly occupied as sheep runs. Fresh water, the great desideratum in Australia, is obtainable throughout the peninsula by sinking wells to a moderate depth. The soil is mostly a light

loam, about two feet in depth, lying on a bed of oyster-shells and gravel.

Kangaroo Island, which in form resembles an ill-shaped human head and trunk, without arms or legs, lies opposite to the mouth of Gulf St. Vincent, immediately to the south of York Peninsula, and is estimated to be about 80 miles in length, by 35 miles in breadth. It is a hilly table-land of uninviting aspect, being for the most part covered with dense scrub.

The principal features of the northern coast are high bluffs and rounded hills thickly clothed with scrub; the western shores are bold and rocky; the southern are indented with picturesque shingly bays; and abrupt whitish cliffs and perpendicular rocks extend along the eastern boundary. That this island has been separated from the main land by the ceaseless operations of the ocean appears probable, as the mica-slate formation that occurs at Cape Jervis, continues all along its southern coast. The coast of

Kangaroo Island affords several good anchorages. Nepean Bay, where the first South Australian colonists landed, and formed the settlement of Kingscote, is a commodious and safe harbour. American river, a large expanse of water, about twelve miles across, which runs up from Nepean Bay, and nearly divides the island in two, is also an excellent haven. Antichamber Bay, on the eastern coast, affords safe anchorage; and at Point Morrison, on the western shore, the coast rises in high bluffs, and forms a commodious harbour, where vessels of the largest size can ride perfectly sheltered from all winds.

At Cape Willoughby a light-house, named the Sturt Light, has lately been erected, which can be seen twenty-four miles at sea. But little is known of the interior of this extensive island; indeed the scrub is in most places impenetrable. The prickly-bush, a close growing shrub, covered with long dangerous thorns, and cultivated by the colonists for hedges, being

impervious even to cattle, is very generally mixed with the other scrub throughout the island; and in some spots stately Encalyptus and other large forest trees tower above the stunted brushwood. It is a fact of some importance, that whenever the land has been cleared, it has yielded good returns. Good water is scarce, and in most cases only procurable by sinking deep wells, no fresh water stream worthy the name of a river is known to exist. There is a chain of lagoons that appear to extend across from Seal Bay to Vivonne Bay; but their water is salter than sea-water, and evaporates in summer, leaving large deposits of salt, much of which is collected and sent to Adelaide.

The island is overrun with the wallaby, bandicoot, opossum, seal, guana, wild cat, and common brown Norway rat. Pelicans and venomous snakes are also numerous, and formerly kangaroos and emus abounded. The latter are now all destroyed, and the former

are scarce, although, when Flinders visited the coast, kangaroos were so numerous, that he and his party in one day killed thirty-one, the least weighing 69 lbs. and the largest 125 lbs. They were so unaccustomed to the sight of men, whom they apparently mistook for seals, that they allowed themselves to be approached and shot in the eye, or knocked down with sticks. The seals were more sagacious than their friends the kangaroos, and on the approach of the men, hastily retreated.

Kangaroo Island is inhabited by about one hundred persons, most of whom lead a lawless life, and subsist by fishing, cultivation, and hunting wallaby and seals. Some of the hunters have been upwards of thirty years on the island, and are assisted by black women, whom they have kidnapped from the main-land, and Van Diemen's Land. The principal settlements are at Kingscote, and Threewell river, Nepean Bay; at Antichamber Bay, Hog Bay, Creek Bay, American River, Freestone,

Hairy Seal Beach, Bloody Jack's Bay, and Western River.

There are some tolerable farms at Threewell River; and of late years a few sheep stations have been formed. Around Kingscote, and in many other parts of the island, the scenery is picturesque, and the climate is said to be more salubrious, and equable than at Adelaide. The gales of wind, however, are heavier, and the falls of rain not so frequent nor so great as on the main-land.

The only district remaining unnoticed is the country to the north of Stanley county, and eastward of the head of Spencer's Gulf. It has not been well explored, as from its general character, it is most difficult of access. The extensive plains and numerous valleys lying between the Broughton River and the parallel of Mount Brown, at the western foot of Flinders' range, are, however, generally rich in alluvial soil and well grassed, and watered by numerous streams, whose meanderings from the moun-

tains to the head of the gulf are marked by lines of stately trees, which flourish on their banks. The lowlands in the parallel of the Narrien range, and immediately to the westward of it, are grassy and lightly timbered with she-oak, with flats of alluvial soil occurring in the valleys. The furthest available country in the direction of Mount Hopeless, lies to the north of Mount Eyre, between latitudes 31° 56′ and 31°, named "the Pond." It is a perfectly level tract, comprising about 150 square miles of fertile grassy land, surrounded by perpendicular rocks which rise to the height of 1000 feet, and there is only one point of ingress, or egress—a very narrow swampy gorge.

Lake Torrens, which stretches from the head of Spencer's Gulf for a considerable distance inland, is supposed to be of immense extent. Its northern and western limits are unknown. Mr. Eyre, who discovered it, ascertained that from its commencement, near the head of Spencer's Gulf, it takes a circuitous course of

fully four hundred miles, following the sweep of Flinders' range, and almost encircling it in the form of a horse-shoe. The lake is girded up the east and south bank by a ridge of sand, covered with salsalaceous plants; and much of its bed is dry, and coated completely over with a crust of salt, forming one unbroken sheet of pure white, glittering in the sun, but yielding to the foot, the bed of the lake below the surface being composed of a soft mud.

The country to the east of Mount Bryan, and extending northward as far as Mount Hopeless, although but little known, appears to be generally barren and scrubby. Indeed, every endeavour to discover land in this locality available for either pastoral or agricultural purposes has hitherto failed. Captain Frome, of the Royal Engineers, states that the Murray scrub continues along the foot of the ranges for a considerable distance to the northward; and that to the east a succession of barren rocky ranges run parallel north and south, the spurs

all rising into irregular conical masses of rock at the extremities. He crossed several of the spurs without finding water, or good soil. He, however, beheld what appeared a better country under some highland about 60 miles to the north-east of Mount Bryan, probably the tract partially explored by Lieutenant-Colonel Gawler, and Captain Sturt in 1840, and by them found to be fertile and grassy.

To the northward of Mount Hopeless the country is a dreary desert, through which, as before mentioned, the intrepid explorer, Captain Sturt, penetrated to the north-east boundary of the province, and to latitude 24° 26′, nearly in the centre of the continent.

CHAPTER X.

Geology and Mineralogy.

Our knowledge of the geological and mineralogical features of the colony are limited; indeed it would be unreasonable to expect that minute details on these highly important and interesting subjects could be obtained of a country so newly discovered, and, as yet, so imperfectly known.

The mountain ranges, stretching from Cape Jervis in the south, to beyond Black-rock Hill in the north, have evidently been raised by a

subterranean movement of great power—probably igneous—which, finding no sufficient vent in the north, pursued a southerly course, successively upheaving the spurs and ridges. The rocks composing these ranges are either of the plutonic, or the oldest sedimentary formation: they, as far as known, are non-fossiliferous, and the general dip of the strata is to the southward. The only manifest indications of volcanic agency in these ranges are the basaltic Black-rock Hills, to the northward of which there are thermal springs, and the crater of an extinct volcano.

The strata composing the plains, both to the east and to the west of these ranges, teem with fossil remains, many of which belong to species identical with, or nearly allied to the species now existing in the neighbouring seas. The low ridges, knolls of sand and other appearances at the foot of the Adelaide hills, render it highly probable, that the west faces of the ranges were covered by the sea long after the

mountains had been forced up to their present altitude, and that, after a period of repose, the plains were raised gradually, and, so to speak, evenly, to their present level, by a deep-seated upheaving force exerted in a direction from east to west.

The plains to the westward of the ranges are about 50 feet above the level of the sea. The upper strata consists of oolite limestone, in many places protruding through the soil, and generally containing a large proportion of sand; indeed, some of the lower beds are indurated sandstone of a light cream colour, almost devoid of fossil remains, and good for building purposes. The tertiary fossiliferous strata composing these plains contain beds of gypsum, and are generally covered with a deposit of limestone and soil devoid of organic remains, which, to all appearances, was caused by the gradual shallowing of the water by the rising of the land, as the remains of animals would doubtless be more completely destroyed by the

tides and currents in shallow than in deep water.

The tertiary limestone covers the low, flat country on the east of the ranges. The eastern limits of this extensive, level, and generally scrubby country, have not been ascertained. The river Murray, as before mentioned, has cut a channel through it. The strata are horizontal, the surface level or slightly undulating, and the elevation from 100 to 200 feet above the level of the sea. The upper strata consist of beds of common oysters, and oyster-shells unbroken, three to four feet in thickness: below this there are beds of mixed coral, pectoris, echini, spiralis, and other marine shells, generally much broken, and mixed with sand, selenite, and limestone. Alternating with these are beds of pure sand, and immediately beneath them, vestiges of fish, teeth, and nautila, many of which are converted into gypsum or sulphate of lime, which renders them very beautiful. Sulphate of lime also occurs in beds, and earthy

bitumen oozes from the cliffs of the Murray, which are cavernous, and afford from their surface nitrate of potassa in an efflorescent state.

The tertiary limestone occasionally occurs on the hills, as well as on the plains; and primitive, and transition limestones are very general throughout the ranges from Cape Jervis to Mount Arden. Some of the primitive limestone (white marble) in the Barossa range is as fine in grain as the celebrated Carara in Italy, and it can easily be separated into flags of any size. The strata immediately beneath the primitive limestone is generally mica-slate, clay-slate, or a transition slate, resembling the greywacke of North Wales; indeed, the lower slopes of all the mountain ranges consist generally of slate, from the most indurated and roofing slates, to those that pass into clay. Several quarries of excellent slate are worked at Willunga. It appears highly probable that as lumps of gold weighing as much as twenty-five pounds each, have been

found in the Uralian mountains, between primitive limestone and mica slate, that the corresponding strata in South Australia will yield equally valuable produce, and this opinion is strengthened by the fact that the gold-bearing hills in the neighbourhood of the river Turon, in New South Wales, are formed almost wholly of mica-slate. Sandstones, in many varieties of hardness and colour, some useful for building purposes, are generally dispersed. Red micaceous sandstone, similar to the red sandstone of Warwickshire, and a cream coloured sandstone, excellent for building, are found within about five miles of Adelaide, in the Mount Lofty range. A fine-grained sandstone, similar in appearance to chalk, occurs at Campbell's range, and a hard white, and a coarse quartzose sandstone prevail in the Mount Remarkable range. Quartz veins are of frequent occurrence in the primitive limestones, the slates, and the sandstones, and they generally indicate the presence of metals.

The mineral formations of South Australia may be briefly described as principally a stratified rock, which is immediately contiguous in order to the earliest formations. The first plutonic formation consists chiefly of a very coarse-grained granite, in which the several component parts—namely, quartz, felspar, and amphibolic substances, generally occur in more or less separate deposits, and not, as is mostly the case in England, in conglomerate masses. Thus, a long reef of quartz frequently stands out a considerable distance from the other easier decomposed masses, as if it were a lode containing a vein of metal. Equally deceptive are the amphibolic substances, which, in general, easily decompose, and cheat the explorer's eye by illusive indications of the presence of metallic ore. As in the early plutonic masses, selix, lime, and alumina are the principal substances; so likewise are they in the first succeeding clay-slate rocks, but with this peculiarity; that frequently one of these parts predominates so much, that,

for example, the quartz converts the clay-slate into a hornstone, or the lime appears a limestone; so that what appears a limestone hill, proves, on examination, to be only a bunch, or nest.

The rocks and minerals found in the colony are:

Rocks.—Granite: Coarse red granite creeps out in the Murray scrub through the tertiary strata. It forms islands in the Murray, and rocks near the head of the Coorong, and it is met with at Yankalilla, the Valley of the Inman, Cape Jaffa Reef, Cape Morard de Galles, and at Mount Barker. Fine red granite occurs in the vicinity of the coarse red variety, at all the above-named places, and also in rocks of considerable size at Mount Parapet, about a hundred miles north-east of Port Lincoln. Nodules of fine grey granite are imbedded in much of the coarse red at Cape Morard de Galles, and white granite with schorl, both coarse and fine, is found at the Torrens, about twenty-five miles north-east of Adelaide, at the north of

Mount Barker, and about three miles north of Cape Jervis. White binary granite, both coarse and fine, occurs in large masses, northward of Mount Barker; and binary granite, with black and green schorl, has been met with in the Barossa range, at the Onkaparinga, and north-west of Mount Barker.

Sienite is found at Encounter Bay, at Flaxman's Valley, and at Northside Hill, Port Lincoln. Red porphyry occurs near Mount Arden, green porphyry at the Barossa range, and bright serpentine north of Mount Bryan.

Gneiss is very generally met with in those portions of the Mount Lofty and the Barossa ranges, which drain eastward towards the Murray. It occurs in the valley of the Inman, at Strathalbyn; at the Gawler, in Moorooro, at the north and south Rhines, and other localities. To the east and south-east of Mount Barker there is gneiss passing gradually into sandstone.

Mica slate is so generally distributed, especially in those parts of the Mount Lofty, and other ranges, which drain eastward, towards the Murray, that to name its locality would be tedious, and answer no useful purpose: but it may be well to mention that there is a red sandy mica slate near Mount Arden.

Chlorite slate occurs in the valley of the Inman, and in the vicinity of Mount Barker. Hornblende slate is found at Rapid Bay, and in the Barouse range. Graywacke slate is generally dispersed at Depot Creek, at Mount Arden, and in the Belvidere, and the Mount Lofty ranges. Clay slate, one of the most extensive formations in South Australia, abounds in metallic ores, which are mostly indicated by its stratified quartz. It occurs very generally in the westward slopes of the ranges drawing towards St. Vincent's and Spencer's gulfs. The colour of this formation varies from grey to white, and to blue slate. Where the quartz predominates, it changes into siliceous

slate, or touchstone; where the clay is in excess, alum slate appears. Some of the slates are excellent for roofing and other purposes.

Quartz rock occurs at the westward base of Flinders' range, and the marble range in Eyria peninsula. Black quartz or flinty slate is common in Flinders, Mount Lofty, and the other ranges eastward of Spencer's Gulf.

Sandstones, as before mentioned, are general throughout the Mount Lofty and adjoining ranges; they are frequently granular, and highly ferruginous. There are both quartz ore, and red micaceous sandstones, which are hard, and even grained, and good for building purposes: indeed, many of the public edifices in Adelaide and other places are built of such. Some of the sandstones pass by almost imperceptible gradations into slate.

Limestone, both primitive and transition, is common throughout the ranges. When, as is

frequently the case, the primitive limestone is combined with clay-slate, its metallic riches are great: when blended with quartz, it forms an excellent millstone. White marble, resembling Carara, is found at Rapid Bay, and at the Barossa range. White marble with white and grey veins, exists in the neighbourhood of Mount Barker, and there is a fine white and pink veined white marble, about twelve miles north-east of Adelaide. A coarse grained white crystaline limestone, a compact grey limestone, and a white and grey slaty limestone, occur at Rapid Bay, and in the vicinity of Mount Barker. There is an excellent variegated compact limestone naar Mount Arden; coral limestone is met with in the country around Mount Gambier, and Mount Schank; there is a compact limestone, with fossil remains, near Cape Bernouilli; and oolite fossil limestone occurs over the whole of the country of tertiary, or recent formation.

Earthy Minerals.—Quartz in veins, and in

hexagonal prisms, commonly with summits, is very generally distributed among the metalliferous strata: the finest specimens occur at Mount Barker, and in the Barossa, and the Belvidere ranges. Black quartz occurs near Mount Arden, and at other places in Flinders' range; at several places in the Barossa range, at Brown-hill Creek, and about seven miles northward of Mount Barker, in the Mount Lofty range. Smoky quartz veins are met with in the Belvidere range; rose-coloured crystallized-quartz occurs in the vicinity of the Montacute copper mine; and black flint, in nodules—not the chalk flint—abounds on the beach at Rivoli Bay. Woodstone and hornstone are very general at Flaxman's valley and other places in the Barossa range.

The hornstone within the Barossa range, unlike that of Europe, which is usually a combination of quartz and felspar, combines quartz, lime, and magnesia, and produces a singular variety of siliceous minerals. Not only does the

rock itself assume shapes and colours, peculiar, I believe, to South Australia; but it also includes opal, jasper, woodstone, cornelian, chalcedony, and siliceous tuffa, which are most varied by the admixture of iron, magnesia, lime, or other substances, Opal—white, blue, brown, green, magnesian, brimstone-coloured, and other varieties—occurs in the Barossa range, not merely in nodules, but in rocky masses, and in veins, which run in almost every direction through hornstone and through siliceous tuffa, without regular strata. These veins when opened will doubtless yield an abundance of precious stones. Chalcedony, red, white and blue, is met with in numerous and extensive veins in the Barossa range. Where pores and caves occur in these veins it is botryoidal, without the least disposition to crystallization.

Chalcedony with jasper is abundant in the vicinity of the Kapunda copper-mine. The chalcedony of South Australia forms a variety of onyx with woodstone, and with opal in zones.

It is generally of a blue, bluish, white, or yellow colour, and forms a transition through a red colour into cornelian. It frequently occurs in veins, traversing woodstone, hornstone, or asbestos. The milk-white chalcedony, which incloses fibres of asbestos, forms the cat's-eye, and is of frequent occurrence in Flaxman's Valley.

Agate: the translucent-white and red varieties called cornelian, and also red and blue-striped, and moss-agates, are met with in the Barossa range. The red and blue-striped agate sometimes appears on the surface of the hills, with the siliceous oxide of manganese, which probably forms veins in the interior.

Jasper: numerous varieties of this mineral occur in the Barossa range, where, in some places, the red and yellow opal-jasper occupies the place of hornstone, or forms regular strata in it. Opal-jasper is also met with in the Belvidere range.

Amethyst, rock-crystal, and other beautiful

kinds of quartz, occur in the Barossa and the Belvidere ranges.

Zoolite: the Barossa and the Belvidere ranges, contain crystalized and mammilated specimens of this elegant family of minerals, which are generally found in cavities.

Garnet: the precious garnet, the cinnamon-stone, and other varieties of this mineral, abound in the Barossa and the Belvidere ranges. It occurs in general in mica-slate. Fine specimens of black garnet are met with about twenty miles north-east of Mount Barker, near Mount Beevor.

Hornblende, in its several varieties of common hornblende, grammatite, white, brown, and green, and brown actynolite; flexible and common asbestos; mountain wood, fibrolite, and white and green flowery and foliated sappare, abound in the Barossa, and in the Belvidere ranges. The asbestos commonly traverses, or is woven through hornstone, opal, chalcedony, or other minerals. There is

brown actynolyte and asbestos, with chalcedony and siliceous tuffa, in the vicinity of Mount Barker.

Aluminous clays are abundant and numerous. They occur as follows: White, red and yellow clays, at the Gawler; white indurated clay at Flaxman's Valley, and to the north of Port Lincoln; variegated unctuous clays at South Adelaide, and at Brownhill Creek; white pipe-clay at the Torrens, near the South Australian Company's mill, and in other places, and at the Gawler plains; white and pink pipe-clay at North Adelaide, 125 feet below the surface, and at the sources of the Angas; blue clay, with iron pyrites, at North Adelaide, 80 feet below the surface; red, white, and blue clay in the vicinity of Mount Barber; yellow and green clay at Crystal Brook; green inundated clay, in the neighbourhood of Mount Lofty; alum-slate and alum-stone in Mount Lofty and the Belvidere ranges.

Alkaline Earthy Minerals.. — Schorl in

prisms, with yellow mica, occurs at Encounter Bay; acicular schorl has been found in the valley of the Inman; black and green schorl exist in granite in the neighbourhood of Mount Barker; and other varieties of the mineral occur at numerous places in Mount Lofty, and in the Barossa ranges; and specimens of rubillite have been found in the valley of the Inman, and in the Belvidere range.

Talc: earthy talc, glanular talc, and indurated talc, occur in Mount Lofty and the Barossa ranges; silver-white foliated talc is very generally spread through the hornstone, the opal, and the siliceous tuffa, and occasionally through the chalcedony. The indurated talc, or soap-stone, which occurs in the Barossa, and the Mount Lofty ranges, differs from the kind usually found in Europe. It resists the disintegrating powers of the atmosphere, becomes hard in the fire, and takes a bright silvery polish, which it retains, not being subject to tarnish.

Mica: white foliated mica in large leaves

occurs in the coarse red granite at the gorge of the Yankalilla; and white flowery mica is met with at the Gawler. Iron mica and black mica are found in the Barossa range.

Felspar: there are foliated, glassy, and flesh-coloured specimens of this mineral in the Barossa and the Belvidere ranges, and granular and flesh-coloured varieties have been found in the valley of the Inman.

Acidiferous earthy minerals are abundant; they occur as follows: Stellated wavellite at the Gawler; dolomite at Rapid Bay, at Brown Hill Creek, seven miles south-east of Adelaide, and in the Barossa, and the Belvidere ranges; bitter spar in the Mount Lofty, the Barossa, and the Belvidere ranges; pearl spar at Rapid Bay, and nine miles north-east of Adelaide; marble, resembling Carrara, at Rapid Bay and in the Barossa range; fine white, and fine white and pink marbles, at ten miles north-east of Adelaide; grey, and white and grey marbles, at Mount Barker and Rapid Bay; black marble

at Brown Hill Creek; calcareous tuffa, at Mount Gambier; calcareous tuffa in cakes, and in spherical balls at Rivoli Bay, and at Lake Hawdon; compact calcareous tuffa, at Rapid Bay and at Crystal Brook; coralloidal calcareous tuffa at Depôt Creek, three miles south of Mount Arden; calcareous stalactites in Mount Lofty, in the Flinders, and in the Barossa range; gypsum, foliated sulphate of lime, in the cliffs of the Murray, and at Brighton, on the plains south of Adelaide; sulphate of lime, in the form of shells, in the cliffs of the Murray, on the Adelaide plains, and in other places: siliceous tuffa, at Mount Barker, and in the Barossa, and the Belvidere ranges. In the Barossa range there are two kinds of siliceous tuffa; the first is quartz, and begins with porous hornstone, or chalcedony, and ends in a spongy mass like pumice; the other is in connection with opal, takes the shape of hydrophane opal which is not transparent, unless immersed in water, and ends in a kind of freestone.

Acidiferous alkaline minerals.—Chloride of sodium (common salt) occurs in lakes near the Coorong, in Eyria peninsula, in Kangaroo Island, and other places. Efflorescent sulphate of soda (glauber salts) is met with in the vicinity of Crystal Brook, and there is efflorescent nitrate of potassa in the cliffs of the Murray.

Acidiferous alkaline earthy minerals.—Of this family only carbonate of magnesia and alum have been met with; the former commonly occurs in the limestone, in the Mount Lofty and the Barossa ranges; the latter (mammillated and efflorescent) has been found in the vicinity of Mount Barker, at the gorge of the Torrens, and in the Belvidere range.

Combustible or inflammable minerals.—Sulphur has only been found in a native state imbedded in quartz veins, with iron pyrites, in the neighbourhood of the Montacute copper-mine, ten miles north-east of Adelaide. Graphite, or blacklead, although not occurring in abundance, will probably be found in sufficient quantities for all the purposes of the arts in the

colony. It has been met with in a graphitic mica-slate at Wellington, in the vicinity of Mount Torrens and in the Belvidere range. Earthy bitumen has hitherto only been discovered oozing from the Murray cliffs, where it probably exists in considerable quantities.

Coal is not at present worked in the colony; indeed, several scientific and practical mineralogists have searched for it far and wide to no purpose. Its existence, however, is, at least to myself, no longer problematical, as I had the good fortune to discover within a reasonable distance of Adelaide what to all appearance is an extensive field of this highly useful mineral. The specimens I procured closely resemble the New South Wales Newcastle coal; the colour is black, the fracture even, the structure foliated, soft and brittle; the specific gravity 1·30. On analysis every 100 parts weight yielded: coke 70·8, coal-tar 16·2, ultimate elements, deducting the earthy matter, carbon 70·2, hydrogen 19·6, nitrogen 10·2.

Metallic minerals.—Iron is plentifully distributed throughout the ranges on the east of Spencer's and St. Vincent's gulfs. Iron pyrites, or sulphurets crystallised in cubes, and uncrystallised, occur at Rapid Bay, Encounter Bay, Mount Barker, and generally throughout the ranges in limestone, gneiss, hornstone, slates, and associated with other metallic ores. The oxides are bog iron ore, specular iron ore, and magnetic iron ore. They are very abundant in the ranges from Cape Jervis to Black Rock Hill.

Carbonate of iron is also of frequent occurrence, and earthy phosphate of iron has been found at Strathatbyn and near Mount Rufus. Works for the reduction and the smelting of the iron ores have not yet been established; but, after the gold mania has subsided, the speculation will doubtless prove profitable, as iron ores of the finest quality are in many places so abundant, that, for some time to come, nothing more would be necessary than to shovel them up and

cart them to the works to be smelted. Latterly, the iron-founders of Adelaide have, by way of experiment, reduced small quantities of the ore, and obtained iron of the first quality.

Copper. — The ores of this metal are of the best varieties of the sulphurets, oxides and carbonates, which are found in great abundance. Since 1844 numerous copper mines have been opened, and some of them have been very extensively worked. The chief ores of some of the principal copper mines are:

Burra Burra mine. As the ores, and their form of deposit, at this valuable mine may be viewed as a type of the copper formation in South Australia generally, it may be well to describe them in detail. The entire neighbourhood of the mine is of clay-slate formation, in which calcareous substances are in the form of nests, and these nests, being easily worked, much facilitate mining operations.

The Burra Burra lode is in a direction from north to south, and although the entire mass

of the lode is pervaded with copper, and copper ores frequently occur in what miners call bunches in nests, still the greatest accumulations are in the veins—large as lodes in other mines—which cut the main direction of the lode in a more or less acute angle. It therefore appears probable that the copper exhalation ascended from out of one common fissure, was then carried off in separate class fissures, and, being covered with clay-slate rock, and unable to reach the surface, became sublimate in a superincumbent stone.

The ores may be described as follows:

Native copper occurs in indented and branchy forms, usually surrounded by some oxide of copper, and black iron stone, an ore to be presently described.

Crystals are rare; they occur in cubes, or in cubes with the corners cut off. The lustre is bronze-like, but becomes copper-red on exposure to the air.

Red oxide of copper in crystals occurs as the

octohedron with rounded edges. The crystals are of a bright red colour, but on exposure to the air assume a steel-grey lustre; many, especially the large ones, are inclosed in malachite.

Red oxide of copper, crystalline grained, occurs in crystals, detached and massive, the latter resembling in appearance fine-grained specular iron. Its structure is crystalline, and sometimes of such fine grain, that when broken it has a saponaceous lustre. It is mostly of a reddish hue, and generally surrounded by an impure mass of carbonate of copper.

Red oxide of copper, with laminated texture, is of an unusual bright colour, and always found with blue carbonate of copper, and impure malachite towards the outside.

Compact red oxide of copper is of a reddish hue, and without metallic lustre.

Earthy red oxide of copper has a tint so like vermillion, that it would scarcely be taken for copper.

The per centage contents of the red oxide of copper are: copper, 88·78; 11·22.

Malachite, or green carbonate of copper, is a larger lode than any other in the mine, and the favourite ore of the miners, being of all the most easily dressed, as on account of the bright green colour, the smallest particles are perceptible in the washing.

Malachite crystals have for their original form the inclined rhomboidal column, to which are added various other combinations. They occur chiefly in cavities of brown ironstone, single or grouped together; they are quite opaque, with a glassy, silky, or waxy lustre.

Fibrous malachite occurs in various sized flat pieces, each piece consisting of a mass of connecting knobby portions. It is the purest of the malachite family, very compact and firm in fibre, and the clearage exhibits a silky lustre.

Massive malachite consists of a kidney, bunch of grape, and icicle shaped mass, with gene-

rally a smooth surface, arising from the presence of silex, and an opaque green colour, again coloured either white or black according to the predominance of either lime or iron.

Earthy malachite when immediately on the outside of native copper occurs pure and easily friable: when otherwise, or in larger roundish pieces, it is generally intermixed with oxide.

The percentage contents of the malachite, are:—oxide of copper, 70; carbonic acid, 21·25; water, 8·75.

Blue carbonate of copper occurs mostly crystalline; the normal form of the crystals being the inclined rhomboidal column, with many, but rather small, combinations. In a black iron-stone, and in a green coloured impure talc, it is found in pure azure-blue crystals, generally in tabulated forms; or in more ochry masses, it forms globular, or kidney-shaped pieces, with radiant laminated texture.

Blue carbonate of copper crystalline grained

is scarce: it rarely occurs except in black iron-stone, when it assumes a dark blue tint.

Massive blue carbonate of copper is often found of a sky-blue tint, on the outside of fine-grained, and massive red oxide of copper.

Earthy blue carbonate of copper occurs in soft friable masses of a bright blue colour, and is very plentiful.

The percentage contents of the blue carbonate of copper are oxide of copper 69·8; carbonic acid, 25·46; water, 5·46.

Siliceous copper varies in form: the globular, bunch of grape, and kidney-shaped, are considered the richest ores, other shaped pieces being thrown among the rubbish as worthless. It contains from 1 to 38 per cent of copper; the tints, therefore, vary considerably. Rich specimens are of a dark green colour, with a waxy lustre; the poorer kinds are of a light blue tint.

The above are all the varieties of copper ore produced at the Burra Burra, and it is remarkable, that both copper and iron pyrites, and

zinc-blende, which are so generally met with in almost all European mines, are there wanting. Therefore all sulphurated metals are absent, although, as gypsum is frequently met with, such metals might at the earliest period of the formation of the Burra Burra have existed, when, probably, at some date less remote, the, sulphuric acid was disengaged from the metals, and passed with a small quantity of water into the sulphate of lime (gypsum) and the ores were changed into their present state.

Most of the malachite appears to have been formed by the washing away of the fine earthy particles of malachite, so that they are now formed on the surface of native copper, foreign substances being at the same time carried down by the action of the surface water, and intimately blended with the copper; hence its scaly and stalactitical structure, and the varied green tints of the different layers. This formation of malachite has taken place at the Burra Burra to that extent, that a malachite lode, on which

Kingston's shaft is carried down, is perhaps the richest copper lode in the whole mine.

Besides copper ore, there is at this mine large quantities of a brown iron-stone, called by the miners black ore, an abbreviation of black iron ore. This ore occurs in all its transitions down to the yellow friable hydrate of iron: in the purest state it contains oxide of iron 89·68, water 10·32, and is black as pitch, of a saponaceous lustre, and its fracture perfectly striated. It is a valuable formation, owing to the large quantity of copper which is mechanically mixed with it, mostly in small veins or strings. It surrounds the large pieces of native copper, and in its more ochry portions are embedded those large lumps of fine-grained crystallined oxides of copper which are often impregnated with crystalline malachite. Indeed, it is so impregnated or intersected by one or more of the already enumerated kinds of copper, that a pure piece a cube inch in size can rarely be obtained.

Kapunda Copper Mine.—The principal ores of this mine are native copper, crystallised in octahedrons; purple copper ore, grey copper ore, copper glance, the scarce and valuable muriate of copper, and both blue and green carbonates of copper.

Wakefield Copper Mine.—Ferruginous carbonate of copper, with sulphate of barytes.

Montacute Copper Mine.—Native copper, copper pyrites, generally variegated, and both blue and green carbonate of copper.

Mount Barker Copper Mines.—Ferruginous red oxide of copper, and blue and green carbonates of copper, generally earthy.

Yattagolinga Mine, Rapid Bay.—Grey, yellow, peacock, and purple copper pyrites, and earthy carbonate of copper.

Lead.—Rich ores of this metal occur in the Mount Lofty range. At the Glen Osmond Mines the ores are galena, in cubes and granular, and the corneous lead ore, a muriocarbonate of lead. They average a yield of

75 per cent of lead, with 18 oz. of silver to the ton of ore. The lead ores at Yattagolinga Mine are galena in cubes, carbonate of lead, and steel-grained and potters' ore. The lodes of lead are found on the surface in numerous places, and are worked with ease and at little cost. The average yield is 75 per cent of lead and 18 to 20 oz. of silver to the ton of ore.

Manganese has been met with as follows: Massive black oxide of manganese at Rapid Bay, at the Barossa range, and in the neighbourhood of the Light. Fibrous black oxide of manganese at Rapid Bay, at Myponga, and at Onkaparinga. Siliceous oxide of manganese at Rapid Bay, at the Barossa, and the Belvidere ranges, and at Mount Bryant.

Sulphurate of tin and oxide titanium have been found in the Barossa range; and siliceous oxide of antimony occasionally occurs with copper ore, in the Mount Lofty and other ranges.

Native silver is found in small quantities in the vicinity of Mount Barker.

Gold has hitherto not been met with in sufficient quantity to pay for working, although it appears probable that ere long it will be found in abundance. It occurs in fine grains in the Torrens, the Onkaparinga, the Gawler, and Para rivers, and in small veins in the vicinity of the Montacute Copper Mine.

CHAPTER XI.

Capabilities of the soil—The Burra-Burra mine—The mines in general.

THE soil in South Australia differs in no essential degree from that of Victoria. As is the case in Australia generally, it is very unequal—here rich and there poor; but besides the land in cultivation, there are millions of acres of wilderness that only require to be tilled or planted, to yield an abundance of corn, vegetables, and fruits. And great as the agricultural capabilities of South Australia are shown to be in a preceding chapter, they are quite equalled

by the horticultural and vine-growing resources of the province. Sheep and cattle breeding is an occupation less resorted to than in Victoria or New South Wales. The live stock depastured on Crown and purchased lands, in 1850, amounted to: horned cattle and horses, 124,558; sheep, 1,374,732.

South Australia owes much of its greatness to its copper and lead mines. Towards the close of 1842, when mismanagement and inordinate speculation had reduced the settlers to the verge of ruin, the rich Kapunda Copper Mine was accidentally discovered by the son of Captain Bagot and Mr. Dutton. Maintaining secrecy on the subject, these gentlemen got a section of eighty acres surveyed, which, according to the then regulations, was advertised for a month in the government "Gazette," when they became the fortunate purchasers at the fixed upset price of £1 per acre; although, had any of the holders of the numerous previously granted eighty acres land orders, sus-

pected the existence of copper ore thereon, they might have selected this section.

The value of the Kapunda Mine no sooner became known, than the colonists were seized with a mining mania. Merchants, squatters, and labourers explored the hills in every direction, and with the utmost caution and secrecy pocketed iron pyrites for gold, mica for black-lead, and sandstone, covered with moss and green fungus, for copper-ore. But the stockmen and the shepherds, who frequently could find only a piece of metallic ore to throw at a stray beast, were the principal discoverers of the valuable minerals; and in no instance has one of these poor bushmen received a due reward for his important discovery.

The mines in South Australia are so numerous, that a particular description of each would be dry and uninteresting. A few remarks in connection with the great Burra Burra Mine may, however, be acceptable.

At the beginning of 1845, Adelaide was thrown into a state of excitement by a well-founded report that a "monster copper mine" had been discovered by a shepherd in the far north. The precise locality was for a period kept secret; and after great exertions to raise £20,000 in Adelaide, owing to the distressed state of the colony, two associations were formed, one by the wealthy called the *nobs*, the other known as the *snobs*, which procured £10,000 each, and purchased by special survey 20,000 acres, containing the valuable ore, in the vicinity of the Razor-back Mountain, and Burra Burra Creek.

The land so purchased was then lineally divided and appropriated by lot, by the two associations; and it so chanced that the valuable northern half, called the Burra Burra Mine, fell to the snobs, who formed the South Australian Mining Association; and the southern half became the property of the nobs, who named their association the Princess Royal Mining Company.

The South Australia Mining Association was established on the 16th of April, 1845, with a capital of £12,320, divided into 2,464 shares, of £5 each, with liberty to increase the capital to £20,000; and its run of prosperity has been the greatest ever known. The first twelve dividends declared and paid, show what this truly fortunate proprietary have achieved in the limited period of three years and a quarter; and will be found in the annexed table.

No. of Dividend.	Declared payable.	Per Centage on Capital Stock.	Amount.	Paid.	Transferred to Unclaimed Dividend Fund.	To pay.
			£.	£.	£.	£.
First .	June 24, 1847	Fifty	6,160	6,130	30	
Second .	July 8, „	Fifty	6,160	6,130	30	
Third .	Aug. 18, „	One hundred . . .	12,320	12,260	60	
Fourth .	Dec. 1, „	Two hundred . . .	24,640	24,520	120	
Fifth .	March 1, 1848	Two hundred . . .	24,640	24,520	120	
Sixth .	June 1, „	Two hundred . . .	24,640	24,520	120	
Seventh .	Sept. 1, „	Two hundred . . .	24,640	24,520	120	
Eighth .	Sept. 5, 1849	One hundred . . .	12,320	12,180	140	
Ninth .	Dec. 1, „	One hundred . . .	12,320	12,180	. . .	140
Tenth .	March 6, 1850	Two hundred . . .	24,640	24,360	. . .	280
Eleventh .	June 1, „	Two hundred . . .	24,640	24,020	. . .	620
Twelfth .	Sept. 4, „	Two hundred . . .	24,640	23,750	. . .	890
Twelve in Three Years and a Quarter.		One Thousand Eight Hundred, or Ninety Pounds per Share.	£221,760	£219,090	£740	£1,930

The Burra Burra mines were opened on the 29th of September, 1845, from which date to the 30th of September, 1851 (six years), the gross amount of ore annually raised and sold, has been as follows:

ORE RAISED.

		Tons.	Cwt.	Qr.
Sept. 30, 1846,	Ore raised at date . .	6,359	10	1
„ 1847,	„ . .	10,794	17	1
„ 1848,	„ . .	12,791	11	1
Sept. 29, 1849,	„ . .	7,789	17	0*
„ 30, 1850,	„ . .	18,691	9	1
„ „ 1851,	„ . .	23,338	11	1
		79,765	13	1

ORE SOLD.

		Tons.	Cwt.	Qr.
Sept. 29, 1845, to Sept. 30, 1851,	Ore exported for sale .	31,172	9	3
	Ore sold in province .	10,601	1	1
Sept. 30, 1851,	Ore delivered to the Patent Copper Company, to date . .	29,343	8	1
	On hand at date . .	8,649	15	0
		79,765	13	1

The total expenditure of the proprietors of the Burra Burra mines was, in 1850,

* The mines were not worked during a third part of this year.

£244,456 2*s.* 5*d.*, in 1851, £196,315 7*s.* 6*d.* In 1851, the total assets of the company were £302,280 18*s.*, and of this £151,697 16*s.* 2*d.* were profit. The wages paid to miners, mechanics, and labourers, at the mines, in the year ending the 30th of September, 1851, amounted to £73,947 8*s.* 2*d.*

The individuals employed on the establishment on the 31st of March, 1851, were 269 tributers, 116 tutwork-men, 41 timber-men and mine labourers, 1 pitman. Total employed under-ground, 427 men. 217 men and 54 boys ore-dressing, 12 men and 4 boys weighing ores, 9 landers, 38 whim-boys, 28 carters, 7 stable-men, 24 carpenters, 2 painters, 6 masons, 7 mason's labourers, 8 smiths, 8 strikers, 2 engineers, 1 fitter, 4 enginemen, 4 firemen, 6 sawyers, 13 variously employed, 111 labourers, 3 boys, 16 officers, 2 surgeons. Total employed at the Burra Burra mines, 1,013. At Karkulto —1 captain, 20 miners, 1 smith, 1 labourer, 1 boy. Total, 24. Officers in Adelaide, 5. Total establishment, 1,042.

The ores of the Burra Burra have been already mentioned in the chapter on the geology and mineralogy of the province.

The first silver lead mine was discovered at Glen Osmond, in 1841, owing to the wheels of a dray passing over a bunch of the mineral cropping through the surface. The times, however, were then so bad, that no attempt was made to explore it beyond raising ore to the value of £390, which was immediately exported to England. Subsequently, the exports of ores and metals have increased in the following ratio:

Year.	Ores or Metals.			Value.			Total.
	Copper.	Lead.	Emery.	Copper.	Lead.	Emery.	
	Tons.	Tons.	Tons.	£.	£.	£.	£.
1843	1	13	. .	23	104	. .	127
1844	277	203	. .	4,009	2,427	. .	6,436
1845	664	273	. .	10,351	3,133	. .	13,484
1846	2,691	189	. .	58,395	1,919	. .	60,314
1847	6,291	60	. .	142,060	580	. .	142,640
1848	10,632	271	68	199,134	3,954	700	203,788
1849	15,615	592	36	292,224	9,028	322	30.,574
1850	11,549	413	. .	279,730	4,088	.	283,818

The mines in South Australia, with their

distance, and bearing from Adelaide, are as under:

Name.	Distance and bearing from Adelaide.
C—Worthing	14 miles S.S.W.
L—Chambers' Mine	10 „ S.
L—Wheel Grainger	5 „ S.E.
L—Provincial Mining Ass.	5 „ S.E.
C—At the Bremer	25 „ E.
L—Glen Osmond	4 „ S.E.
L—Union Mining Company	4½ „ S.E.
L—Wheel Gawler	4 „ E.S E.
C—Montacute	10 „ E.N.E.
C—Wheel Acraman	10 „ E.N.E.
C—Adelaide	10 „ E.N.E.
—Victoria Gold Mine	10 „ E.N.E.
C—Kanmantoo	25 „ E.S.E.
C—Paringa	25 „ E.S.E.
C—Wheel Maria	25 „ E.
C—Bremer	25 „ E.
C—Barossa Royal Mining Co.	22 „ N.E.
C—Reedy Creek	35 „ E.N.E.
C—Lynedoch Valley	28 „ N.E. by N.
C—Enterprise Mining Co.	28 „ N.E. by N.
C—Wheel Barton	50 „ N.N.E.
C—Kapunda	50 „ N.N.E.
C—Morphett's, Sec. 484	51 „ N.N.E.

Name.	Distance and bearing from Adelaide.
C—Princess Royal	82 „ N. by E.
C—Burra Burra	90 „ N. by E.
L—Wheel Margaret	26 „ E.S.E.
C—Strathalbyn	28 „ S.E. by S.
C—Port Lincoln	170 „ W.
C—Bon Accord	90 „ N. by E.
G—Dutton Mine	82 „ N. by E.
C—Currency Creek	40 „ S. by E.
C—Greenock Creek	35 „ N.N.E.
C—Mount Remarkable	160 „ N. by W.
C—North Kapunda	50 „ N.N.E.
C—Poonawurta	42 „ N.E.
C—Para	25 „ N.E. by E.
C—Yorke's Peninsula	56 „ W.N.W.
C—Prince Albert	9 „ E.N.E.
C—Wakefielk	70 „ N.
L—Riversedge	9 „ E.

Of the above forty mines, about ten are being fully and efficiently worked, ten only partially so, and the remaining twenty lie idle. This state of things is for the most part caused either by the want of capital, of cheap labour, and of machinery worked by steam; or, as is the case in several instances, by the poorness of

the mines themselves: for in Adelaide, as in London, mining schemes are too frequently got up with no other view than to enrich the promoters and the directors, and to benefit a set of sharpers, whose sole occupation is gambling, with the shares. This reckless speculation was so rife in 1850, that at the close of that year, there were were quite 30,000 mining scrip in the colony, representing mere holes, in which there was no metallic ore of any kind, except what had been purposely placed there; for in some instances the rocks were painted, and whole dray-loads of copper ore were planted at the spot said to be rich in the metal.

The climate, which indeed is little different from that of New South Wales, or Victoria, is fully detailed elsewhere. The population, according to the last census (1851) was, total males, 34,975; total females, 27,664; omissions for persons travelling, 361; total population, 63,000. The total population of Adelaide amounted to 14,577. These returns,

however, were taken before the occurrence of the gold mania, which caused so great an exodus, that it is calculated, that now (1852) South Australia contains but 20,000 inhabitants. The maritime trade of South Australia is considerable. In 1850 the total exports amounted to £570,816; the total imports to £845,572. The imports from Great Britain were £535,677; the exports to Great Britain, £297,272. The chief exports were: metals, £63,758; ores, £215,420; wool, £113,259; corn and flour, £41,864.

THE END.

LONDON:
Printed by Schulze and Co., 13, Poland Street.

INTERESTING NEW WORKS

PUBLISHED BY

COLBURN AND CO.,

13, GREAT MARLBOROUGH STREET.

NEW EDITION OF THE LIVES OF THE QUEENS.

Now complete, in Eight Octavo Volumes (comprising from 600 to 700 pages), price 4l. 4s., elegantly bound,

LIVES

OF THE

QUEENS OF ENGLAND.

BY AGNES STRICKLAND.

A New, Revised, and Cheaper Edition,

EMBELLISHED WITH PORTRAITS OF EVERY QUEEN.

BEAUTIFULLY ENGRAVED FROM THE MOST AUTHENTIC SOURCES.

In announcing the publication of the new, revised, and greatly augmented Edition of this important and interesting work, which has been considered unique in biographical literature, the publishers beg to direct attention to the following extract from the author's preface:—"A revised edition of the 'Lives of the Queens of England,' embodying the important collections which have been brought to light since the appearance of earlier impressions, is now offered to the world, embellished with Portraits of every Queen, from authentic and properly verified sources. The series, commencing with the consort of William the Conqueror, occupies that most interesting and important period of our national chronology, from the death of the last monarch of the Anglo-Saxon line, Edward the Confessor, to the demise of the last sovereign of the royal house of Stuart, Queen Anne, and comprises therein thirty queens who have worn the crown-matrimonial, and four the regal diadem of this realm. We have related the parentage of every queen, described her education, traced the influence of family connexions and national habits on her conduct, both public and private, and given a concise outline of the domestic, as well

as the general history of her times, and its effects on her character, and we have done so with singleness of heart, unbiassed by selfish interests or narrow views. Such as they were in life we have endeavoured to portray them, both in good and ill, without regard to any other considerations than the development of the *facts*. Their sayings, their doings, their manners, their costume, will be found faithfully chronicled in this work, which also includes the most interesting of their letters. The hope that the 'Lives of the Queens of England' might be regarded as a national work, honourable to the female character, and generally useful to society, has encouraged us to the completion of the task."

OPINIONS OF THE PRESS.

"These volumes have the fascination of romance united to the integrity of history. The work is written by a lady of considerable learning, indefatigable industry, and careful judgment. All these qualifications for a biographer and an historian she has brought to bear upon the subject of her volumes, and from them has resulted a narrative interesting to all, and more particularly interesting to that portion of the community to whom the more refined researches of literature afford pleasure and instruction. The whole work should be read, and no doubt will be read, by all who are anxious for information. It is a lucid arrangement of facts, derived from authentic sources, exhibiting a combination of industry, learning, judgment, and impartiality, not often met with in biographers of crowned heads."—*Times.*

"A remarkable and truly great historical work. In this series of biographies, in which the severe truth of history takes almost the wildness of romance, it is the singular merit of Miss Strickland that her research has enabled her to throw new light on many doubtful passages, to bring forth fresh facts, and to render every portion of our annals which she has described an interesting and valuable study. She has given a most valuable contribution to the history of England, and we have no hesitation in affirming that no one can be said to possess an accurate knowledge of the history of the country who has not studied this truly national work, which, in this new edition, has received all the aids that further research on the part of the author, and of embellishment on the part of the publishers, could lend to make it still more valuable, and still more attractive, than it had been in its original form."—*Morning Herald.*

"A most valuable and entertaining work. There is certainly no lady of our day who has devoted her pen to so beneficial a purpose as Miss Strickland. Nor is there any other whose works possess a deeper or more enduring interest. Miss Strickland is to our mind the first literary lady of the age."—*Morning Chronicle.*

"We must pronounce Miss Strickland beyond all comparison the most entertaining historian in the English language. She is certainly a woman of powerful and active mind, as well as of scrupulous justice and honesty of purpose."—*Morning Post.*

"Miss Strickland has made a very judicious use of many authentic MS. authorities not previously collected, and the result is a most interesting addition to our biographical library."—*Quarterly Review.*

"A valuable contribution to historical knowledge. It contains a mass of every kind of historical matter of interest, which industry and research could collect. We have derived much entertainment and instruction from the work."—*Athenæum.*

BURKE'S PEERAGE AND BARONETAGE,

FOR 1852.

NEW EDITION, REVISED AND CORRECTED THROUGHOUT FROM THE PERSONAL COMMUNICATIONS OF THE NOBILITY, &c.

With the ARMS (1500 in number) accurately engraved, and incorporated with the Text. Now ready, in 1 vol. (comprising as much matter as twenty ordinary volumes), 38s. bound.

The following is a List of the Principal Contents of this Standard Work:—

I. A full and interesting history of each order of the English Nobility, showing its origin, rise, titles, immunities, privileges, &c.

II. A complete Memoir of the Queen and Royal Family, forming a brief genealogical History of the Sovereign of this country, and deducing the descent of the Plantagenets, Tudors, Stuarts, and Guelphs, through their various ramifications. To this section is appended a list of those Peers who inherit the distinguished honour of Quartering the Royal Arms of Plantagenet.

III. An Authentic table of Precedence.

IV. A perfect HISTORY OF ALL THE PEERS AND BARONETS, with the fullest details of their ancestors and descendants, and particulars respecting every collateral member of each family, and all intermarriages, &c.

V. The Spiritual Lords.

VI. Foreign Noblemen, subjects by birth of the British Crown.

VII. Peerages claimed.

VIII. Surnames of Peers and Peeresses, with Heirs Apparent and Presumptive.

IX. Courtesy titles of Eldest Sons.

X. Peerages of the Three Kingdoms in order of Precedence.

XI. Baronets in order of Precedence.

XII. Privy Councillors of England and Ireland.

XIII. Daughters of Peers married to Commoners.

XIV. ALL THE ORDERS OF KNIGHTHOOD, with every Knight and all the Knights Bachelors.

XV. Mottoes translated, with poetical illustrations.

"The most complete, the most convenient, and the cheapest work of the kind ever given to the public."—*Sun.*

"The best genealogical and heraldic dictionary of the Peerage and Baronetage, and the first authority on all questions affecting the aristocracy."—*Globe.*

"For the amazing quantity of personal and family history, admirable arrangement of details, and accuracy of information, this genealogical and heraldic dictionary is without a rival. It is now the standard and acknowledged book of reference upon all questions touching pedigree, and direct or collateral affinity with the titled aristocracy. The lineage of each distinguished house is deduced through all the various ramifications. Every collateral branch, however remotely connected, is introduced; and the alliances are so carefully inserted, as to show, in all instances, the connexion which so intimately exists between the titled and untitled aristocracy. We have also much most entertaining historical matter, and many very curious and interesting family traditions. The work is, in fact, a complete cyclopædia of the whole titled classes of the empire, supplying all the information that can possibly be desired on the subject."—*Morning Post.*

"The 'Peerage' and the 'Landed Gentry' of Mr. Burke are two works of public utility—constantly referred to by all classes of society, and rarely opened without being found to supply the information sought. They are accessions of value to our books of reference, and few who write or talk much about English Peers and English Landed Gentry, can well be looked on as safe authorities without a knowledge of the contents of Mr. Burke's careful compilations."—*Athenæum.*

BURKE'S HISTORY OF THE LANDED GENTRY,

FOR 1852.

A Genealogical Dictionary

OF THE WHOLE OF THE UNTITLED ARISTOCRACY OF ENGLAND, SCOTLAND, AND IRELAND:

Comprising Particulars of 100,000 Individuals connected with them.

In 2 volumes, royal 8vo, including the Supplement, beautifully printed in double columns, comprising more matter than 30 ordinary volumes, price only 2*l.* 2s., elegantly bound,

WITH A SEPARATE INDEX, GRATIS.

CONTAINING REFERENCES TO THE NAMES OF EVERY PERSON MENTIONED.

The Landed Gentry of England are so closely connected with the stirring records of its eventful history, that some acquaintance with them is a matter of necessity with the legislator, the lawyer, the historical student, the speculator in politics, and the curious in topographical and antiquarian lore; and even the very spirit of ordinary curiosity will prompt to a desire to trace the origin and progress of those families whose influence pervades the towns and villages of our land. This work furnishes such a mass of authentic information in regard to all the principal families in the kingdom as has never before been attempted to be brought together. It relates to the untitled families of rank, as the "Peerage and Baronetage" does to the titled, and forms, in fact, a peerage of the untitled aristocracy. It embraces the whole of the landed interest, and is indispensable to the library of every gentleman. The great cost attending the production of this National Work, the first of its kind, induces the publisher to hope that the heads of all families recorded in its pages will supply themselves with copies.

"A work of this kind is of a national value. Its utility is not merely temporary, but it will exist and be acknowledged as long as the families whose names and genealogies are recorded in it continue to form an integral portion of the English constitution. As a correct record of descent, no family should be without it. The untitled aristocracy have in this great work as perfect a dictionary of their genealogical history, family connexions, and heraldic rights, as the peerage and baronetage. It will be an enduring and trustworthy record."—*Morning Post.*

"A work in which every gentleman will find a domestic interest, as it contains the fullest account of every known family in the United Kingdom. It is a dictionary of all names, families, and their origin,—of every man's neighbour and friend, if not of his own relatives and immediate connexions. It cannot fail to be of the greatest utility to professional men in their researches respecting the members of different families, heirs to property, &c. Indeed, it will become as necessary as a Directory in every office."—*Bell's Messenger.*

DIARY AND CORRESPONDENCE

OF

JOHN EVELYN, F.R.S.,

Author of "Sylva," &c.

A NEW EDITION, REVISED AND ENLARGED, WITH NUMEROUS ADDITIONAL NOTES.

UNIFORM WITH THE NEW EDITION OF PEPYS' DIARY.

In 4 vols., post 8vo, price 10s. 6d. each, with Illustrations.

N.B.—The First Two Volumes, comprising "The Diary," are now ready.

The Diary and Correspondence of John Evelyn has long been regarded as an invaluable record of opinions and events, as well as the most interesting exposition we possess of the manners, taste, learning, and religion of this country, during the latter half of the seventeenth century. The Diary comprises observations on the politics, literature, and science of his age, during his travels in France and Italy; his residence in England towards the latter part of the Protectorate, and his connexion with the Courts of Charles II. and the two subsequent reigns, interspersed with a vast number of original anecdotes of the most celebrated persons of that period. To the Diary is subjoined the Correspondence of Evelyn with many of his distinguished contemporaries; also Original Letters from Sir Edward Nicholas, private secretary to King Charles I., during some important periods of that reign, with the King's answers; and numerous letters from Sir Edward Hyde (Lord Clarendon) to Sir Edward Nicholas, and to Sir Richard Brown, Ambassador to France, during the exile of the British Court.

A New Edition of this interesting work having been long demanded, the greatest pains have been taken to render it as complete as possible, by a careful re-examination of the original Manuscript, and by illustrating it with such annotations as will make the reader more conversant with the numerous subjects referred to by the Diarist.

"It has been justly observed that as long as Virtue and Science hold their abode in this island, the memory of Evelyn will be held in the utmost veneration. Indeed, no change of fashion, no alteration of taste, no revolution of science, have impaired, or can impair, his celebrity. The youth who looks forward to an inheritance which he is under no temptation to increase, will do well to bear the example of Evelyn in his mind, as containing nothing but what is imitable, and nothing but what is good. All persons, indeed, may find in his character something for imitation, but for an English gentleman he is the perfect model."—*Quarterly Review.*

LIVES OF THE PRINCESSES OF ENGLAND.

By MRS EVERETT GREEN,

EDITOR OF THE "LETTERS OF ROYAL AND ILLUSTRIOUS LADIES."

4 vols., post 8vo, with Illustrations, 10s. 6d. each, bound.

OPINIONS OF THE PRESS.

"A most agreeable book. The authoress, already favourably known to the learned world by her excellent collection of 'Letters of Royal and Illustrious Ladies," has executed her task with great skill and fidelity. Every page displays careful research and accuracy. There is a graceful combination of sound, historical erudition, with an air of romance and adventure that is highly pleasing, and renders the work at once an agreeable companion of the boudoir, and a valuable addition to the historical library. Mrs. Green has entered upon an untrodden path, and gives to her biographies an air of freshness and novelty very alluring. The first two volumes (including the Lives of twenty-five Princesses) carry us from the daughters of the Conqueror to the family of Edward I.—a highly interesting period, replete with curious illustrations of the genius and manners of the Middle Ages. Such works, from the truthfulness of their spirit, furnish a more lively picture of the times than even the graphic, though delusive, pencil of Scott and James."—*Britannia.*

"The vast utility of the task undertaken by the gifted author of this interesting book can only be equalled by the skill, ingenuity, and research displayed in its accomplishment. The field Mrs. Green has selected is an untrodden one. Mrs. Green, on giving to the world a work which will enable us to arrive at a correct idea of the private histories and personal characters of the royal ladies of England, has done sufficient to entitle her to the respect and gratitude of the country. The labour of her task was exceedingly great, involving researches, not only into English records and chronicles, but into those of almost every civilised country in Europe. The style of Mrs. Green is admirable. She has a fine perception of character and manners, a penetrating spirit of observation, and singular exactness of judgment. The memoirs are richly fraught with the spirit of romantic adventure."—*Morning Post.*

"This work is a worthy companion to Miss Strickland's admirable 'Queens of England.' In one respect the subject-matter of these volumes is more interesting, because it is more diversified than that of the 'Queens of England.' That celebrated work, although its heroines were, for the most part, foreign Princesses, related almost entirely to the history of this country. The Princesses of England, on the contrary, are themselves English, but their lives are nearly all connected with foreign nations. Their biographies, consequently, afford us a glimpse of the manners and customs of the chief European kingdoms, a circumstance which not only gives to the work the charm of variety, but which is likely to render it peculiarly useful to the general reader, as it links together by association the contemporaneous history of various nations. The histories are related with an earnest simplicity and copious explicitness. The reader is informed without being wearied, and alternately enlivened by some spirited description, or touched by some pathetic or tender episode. We cordially commend Mrs. Everett Green's production to general attention; it is (necessarily) as useful as history, and fully as entertaining as romance."—*Sun.*

THE LIFE AND REIGN OF CHARLES I.

By I. DISRAELI.

A NEW EDITION. REVISED BY THE AUTHOR, AND EDITED BY HIS SON, THE RT. HON. B. DISRAELI, M.P.

2 vols., 8vo, uniform with the "Curiosities of Literature," 28s. bound.

"By far the most important work on the important age of Charles I. that modern times have produced."—*Quarterly Review.*

MEMOIRS OF HORACE WALPOLE

AND HIS CONTEMPORARIES,

INCLUDING NUMEROUS ORIGINAL LETTERS, CHIEFLY FROM STRAWBERRY HILL.

EDITED BY

ELIOT WARBURTON, ESQ.

2 vols. 8vo, with Portraits, 28s. bound.

Perhaps no name of modern times is productive of so many pleasant associations as that of "Horace Walpole," and certainly no name was ever more intimately connected with so many different subjects of importance in connexion with Literature, Art, Fashion, and Politics. The position of various members of his family connecting Horace Walpole with the Cabinet, the Court, and the Legislature—his own intercourse with those characters who became remarkable for brilliant social and intellectual qualities—and his reputation as a Wit, a Scholar, and a Virtuoso, cannot fail to render his Memoirs equally amusing and instructive. They nearly complete the chain of mixed personal, political, and literary history, commencing with "Evelyn" and "Pepys," carried forward by "Swift's Journal and Correspondence," and ending almost in our own day with the histories of Mr. Macaulay and Lord Mahon.

"These Memoirs form a necessary addition to the library of every English gentleman. Besides its historical value, which is very considerable, the work cannot be estimated too highly as a book of mere amusement."—*Standard.*

MADAME PULSZKY'S MEMOIRS.

Comprising Full and Interesting Details of

THE LATE EVENTS IN HUNGARY.

With an Historical Introduction by FRANCIS PULSZKY, late Under-Secretary of State to Ferdinand, Emperor of Austria and King of Hungary. 2 vols., post 8vo, 21s. bound.

THE DIARIES AND CORRESPONDENCE OF THE

EARLS OF CLARENDON AND ROCHESTER;

Comprising important Particulars of the Revolution, &c.

Published from the Original MSS. With Notes. 2 vols., with fine Portraits and Plates, bound, 1*l.* 11s. 6d.

BURKE'S DICTIONARY OF THE EXTINCT, DORMANT, & ABEYANT PEERAGES

OF ENGLAND, SCOTLAND, AND IRELAND.

Beautifully printed, in 1 vol. 8vo, containing 800 double-column pages, 21s. bound.

This work, formed on a plan precisely similar to that of Mr. Burke's popular Dictionary of the present Peerage and Baronetage, comprises those peerages which have been suspended or extinguished since the Conquest, particularising the members of each family in each generation, and bringing the lineage, in all possible cases, through either collaterals or females, down to existing houses. It connects, in many instances, the new with the old nobility, and it *will* in all cases show the cause which has influenced the revival of an extinct dignity in a new creation. It should be particularly noticed, that this new work appertains nearly as much to extant as to extinct persons of distinction; for though dignities pass away, it rarely occurs that whole families do.

CONTENTS.

1. Peerages of England extinct by failure of issue, attainder, &c., alphabetically, according to Surnames.
2. Baronies by Writ—England—in abeyance, and still vested probably in existing heirs.
3. Extinct and Abeyant Peerages of England, according to titles.
4. Charters of Freedom—Magna Charta—Charter of Forests.
5. Roll of Battel Abbey.
6. Peerages of Ireland, extinct by failure of issue, attainder, &c., alphabetically, according to Surnames.
7. Baronies by Writ—Ireland—in abeyance.
8. Peerages of Ireland, extinct and abeyant, alphabetically, according to Titles.
9. Peerages of Scotland, extinct by failure of issue, attainder, &c., alphabetically, according to Surnames.
10. Extinct Peerages of Scotland, alphabetically, according to Titles.

MEMOIRS OF SCIPIO DE RICCI,

LATE BISHOP OF PISTOIA AND PRATO;

REFORMER OF CATHOLICISM IN TUSCANY.

Cheaper Edition, 2 vols. 8vo, 12s. bound.

The leading feature of this important work is its application to the great question now at issue between our Protestant and Catholic fellow-subjects. It contains a complete *exposé* of the Romish Church Establishment during the eighteenth century, and of the abuses of the Jesuits throughout the greater part of Europe. Many particulars of the most thrilling kind are brought to light.

MADAME CAMPAN'S MEMOIRS

OF THE COURT OF MARIE ANTOINETTE.

Cheaper Edition, 2 vols. 8vo, with Portraits, price only 12s.—The same in French, 7s.

"We have seldom perused so entertaining a work. It is as a mirror of the most splendid Court in Europe, at a time when the monarchy had not been shorn of any of its beams, that it is particularly worthy of attention."—*Chronicle.*

LIFE AND CORRESPONDENCE OF JOHN LOCKE.

By LORD KING. 2 vols. 16s.

HISTORIC SCENES.

By AGNES STRICKLAND.

Author of "Lives of the Queens of England," &c. 1 vol., post 8vo, elegantly bound, with Portrait of the Author, 10s. 6d.

"This attractive volume is replete with interest. Like Miss Strickland's former works, it will be found, we doubt not, in the hands of youthful branches of a family, as well as in those of their parents, to all and each of whom it cannot fail to be alike amusing and instructive."—*Britannia.*

LETTERS OF ROYAL AND ILLUSTRIOUS LADIES OF GREAT BRITAIN.

Now first published from the Originals, with Historical Notices.

By MRS. EVERETT GREEN,

Author of "Lives of the Princesses of England."

Cheaper Edition, 3 vols., with Facsimile Autographs, &c., 15s. bound.

GENERAL PEPE'S NARRATIVE OF THE WAR IN ITALY,

FROM 1847 to 1850; INCLUDING THE SIEGE OF VENICE.

Now first published from the original Italian Manuscript.
Cheaper Edition, 2 vols., post 8vo, 12s. bound.

"We predict that posterity will accept General Pepe as the historian of the great Italian movement of the nineteenth century. His work is worthy of all commendation."—*Standard.*

THE

REV. R. MILMAN'S LIFE OF TASSO.

2 vols., post 8vo, 21s. bound.

"Mr. Milman's book has considerable merit. He has evidently, in his interesting biography of Tasso, undertaken a labour of love. His diligence has been great, his materials are copious and well-arranged, and his sketches of the poet's contemporaries form agreeable episodes in the narrative of Tasso's works and woes."—*Edinburgh Review.*

MEMOIRS AND CORRESPONDENCE OF

SIR ROBERT MURRAY KEITH, K.B.,

Minister Plenipotentiary at the Courts of Dresden, Copenhagen, and Vienna, from 1769 to 1793; with Biographical Memoirs of

QUEEN CAROLINE MATILDA, SISTER OF GEORGE III.

2 vols., post 8vo, with Portraits, 21s. bound.

"A large portion of this important and highly interesting work consists of letters, that we venture to say will bear a comparison for sterling wit, lively humour, entertaining gossip, piquant personal anecdotes, and brilliant pictures of social life, in its highest phases, both at home and abroad, with those of Horace Walpole himself."—*Court Journal.*

CAPTAIN CRAWFORD'S REMINISCENCES

OF ADMIRALS SIR E. OWEN, SIR B. HALLOWELL CAREW, AND OTHER DISTINGUISHED COMMANDERS.

2 vols., post 8vo, with Portraits, 21s. bound.

"A work which cannot fail of being popular in every portion of our sea-girt isle, and of being read with delight by all who feel interested in the right hand of our country—its Navy."—*Plymouth Herald.*

REVELATIONS OF PRINCE TALLEYRAND.

By M. COLMACHE,

THE PRINCE'S PRIVATE SECRETARY.

Second Edition, 1 volume, post 8vo, with Portrait, 10s. 6d. bound.

"We have perused this work with extreme interest. It is a portrait of Talleyrand drawn by his own hand."—*Morning Post.*

"A more interesting work has not issued from the press for many years. It is in truth a complete Boswell sketch of the greatest diplomatist of the age."—*Sunday Times.*

HISTORY OF THE WAR IN GERMANY AND FRANCE IN 1813 & 1814.

By Lieut.-Gen. the MARQUIS OF LONDONDERRY, G.C.B., &c. &c., 21s.

Now ready, VOLUME XI., price 7s., of

M. A. THIERS' HISTORY OF FRANCE,

FROM THE PERIOD OF THE CONSULATE IN 1800, TO THE BATTLE OF WATERLOO.

A SEQUEL TO HIS HISTORY OF THE FRENCH REVOLUTION.

Having filled at different times the high offices of Minister of the Interior, of Finance, of Foreign Affairs, and President of the Council, M. Thiers has enjoyed facilities beyond the reach of every other biographer of Napoleon for procuring, from exclusive and authentic sources, the choicest materials for his present work. As guardian to the archives of the state, he had access to diplomatic papers and other documents of the highest importance, hitherto known only to a privileged few, and the publication of which cannot fail to produce a great sensation. From private sources, M. Thiers, it appears, has also derived much valuable information. Many interesting memoirs, diaries, and letters, all hitherto unpublished, and most of them destined for political reasons to remain so, have been placed at his disposal; while all the leading characters of the empire, who were alive when the author undertook the present history, have supplied him with a mass of incidents and anecdotes which have never before appeared in print, and the accuracy and value of which may be inferred from the fact of these parties having been themselves eye-witnesses of, or actors in, the great events of the period.

*** To prevent disappointment, the public are requested to be particular in giving their orders for "COLBURN'S AUTHORISED TRANSLATION."

HISTORY OF THE HOUSE OF COMMONS;

FROM THE CONVENTION PARLIAMENT OF 1688-9, TO THE PASSING OF THE REFORM BILL IN 1832.

By WM. CHARLES TOWNSEND, ESQ., M.A. 2 vols. 8vo, 12s. bound.

"We have here a collection of biographical notices of all the Speakers who have presided during the hundred and forty-four years above defined, and of several Members of Parliament the most distinguished in that period. Much useful and curious information is scattered throughout the volumes."—*Quarterly Review.*

DIARY, AND MEMOIRS OF SOPHIA DOROTHEA,

CONSORT OF GEORGE I.

Now first published from the Originals.
Cheaper Edition, 2 vols., 8vo, with Portrait, 12s. bound.

"A book of marvellous revelations, establishing beyond all doubt the perfect innocence of the beautiful, highly-gifted, and inhumanly-treated Sophia Dorothea."—*Naval and Military Gazette.*

LETTERS OF MARY QUEEN OF SCOTS.

Illustrative of Her Personal History.
Edited, with an Historical Introduction and Notes,
By AGNES STRICKLAND.

Cheaper Edition, with numerous Additions, uniform with Miss Strickland's "Lives of the Queens of England." 2 vols., post 8vo, with Portrait, &c., 12s. bound.

"The best collection of authentic memorials relative to the Queen of Scots that has ever appeared."—*Morning Chronicle.*

MEMOIRS OF MADEMOISELLE DE MONTPENSIER.

Written by HERSELF. 3 vols., post 8vo, with Portrait.

"One of the most delightful and deeply-interesting works we have read for a long time."—*Weekly Chronicle.*

LADY BLESSINGTON'S JOURNAL

OF

HER CONVERSATIONS WITH LORD BYRON.

Cheaper Edition, in 8vo, embellished with
Portraits of Lady Blessington and Lord Byron, price only 7s. bound.

"The best thing that has been written on Lord Byron."—*Spectator.*
"Universally acknowledged to be delightful."—*Athenæum.*

ADVENTURES OF A SOLDIER,

Being the Memoirs of EDWARD COSTELLO, of the Rifle Brigade, late Captain in the British Legion;

Comprising Narratives of the Campaigns in the Peninsula under the Duke of Wellington, and the Civil War in Spain.

New and Cheaper Edition, with Portrait of the Author, 5s. bound.

ANECDOTES OF THE ARISTOCRACY,

AND

EPISODES IN ANCESTRAL STORY.

By J. BERNARD BURKE, Esq.,

Author of "The History of the Landed Gentry," "The Peerage and Baronetage," &c.

SECOND AND CHEAPER EDITION, 2 vols., post 8vo, 21s. bound.

"Mr. Burke has here given us the most curious incidents, the most stirring tales, and the most remarkable circumstances connected with the histories, public and private, of our noble houses and aristocratic families, and has put them into a shape which will preserve them in the library, and render them the favourite study of those who are interested in the romance of real life. These stories, with all the reality of established fact, read with as much spirit as the tales of Boccacio, and are as full of strange matter for reflection and amazement."—*Britannia.*

"We cannot estimate too highly the interest of Mr. Burke's entertaining and instructive work. For the curious nature of the details, the extraordinary anecdotes related, the strange scenes described, it would be difficult to find a parallel for it. It will be read by every one."—*Sunday Times.*

ROMANTIC RECORDS OF DISTINGUISHED FAMILIES.

BEING THE SECOND SERIES OF "ANECDOTES OF THE ARISTOCRACY."

By J. B. BURKE, Esq.

2 vols., post 8vo, 21s. bound.

"From the copious materials afforded by the history of the English Aristocracy, Mr. Burke has made another and a most happy selection, adding a second wing to his interesting picture-gallery. Some of the most striking incidents on record in the annals of high and noble families are here presented to view."—*John Bull.*

MR. DISRAELI'S CONINGSBY.

CHEAP STANDARD EDITION, WITH A NEW PREFACE.

In 1 vol., with Portrait, 6s. bound.

"We are glad to see that the finest work of Disraeli has been sent out in the same shape as those of Dickens, Bulwer, and other of our best novelists, at such a price as to place them within the reach of the most moderate means. 'Coningsby' has passed from the popularity of a season to an enduring reputation as a standard work. It is a valuable contribution to popular literature."—*Weekly Chronicle.*

WORKS OF LADY MORGAN.

1. WOMAN AND HER MASTER. A History of the Female Sex from the earliest Period. 2 vols., 12s.
2. THE BOOK OF THE BOUDOIR. 2 vols., 10s.
3. LIFE AND TIMES OF SALVATOR ROSA. 2 vols., 12s.
4. THE O'BRIENS AND THE O'FLAHERTYS. 4 vols., 14s.

JAPAN AND THE JAPANESE,

Comprising the Narrative of

A THREE YEARS' CAPTIVITY IN JAPAN;

With an Account of British Commercial Intercourse with that Country.

By CAPTAIN GOLOWNIN.

NEW and CHEAPER EDITION. 2 vols. post 8vo, 15s. bound.

"No European has been able, from personal observation and experience, to communicate a tenth part of the intelligence furnished by this writer."—*British Review.*

NARRATIVE OF THE

TEN YEARS' VOYAGE OF DISCOVERY ROUND THE WORLD

Of H.M.S. "ADVENTURE" and "BEAGLE," under the command of Captains KING and FITZROY.

Cheaper Edition. 2 large vols., 8vo, with Maps, Charts, and upwards of Sixty Illustrations, by Landseer, and other eminent Artists, bound, 1*l.* 11s. 6d.

ADVENTURES IN GEORGIA, CIRCASSIA, & RUSSIA.

By Lieutenant-Colonel G. POULETT CAMERON, C.B., K.T.S., &c.

2 vols., post 8vo, bound, 12s.

NARRATIVE OF A TWO YEARS' RESIDENCE AT NINEVEH;

AND TRAVELS IN MESOPOTAMIA, ASSYRIA, AND SYRIA,

With Remarks on the Chaldeans, Nestorians, Yezidees, &c.

By the Rev. J. P. FLETCHER. Two vols., post 8vo, 21s. bound.

TRAVELS IN ALGERIA.

By VISCOUNT FEILDING and CAPTAIN KENNEDY.

2 vols., post 8vo, with Illustrations, bound, 12s.

NARRATIVE OF A VISIT TO THE

COURTS OF VIENNA, CONSTANTINOPLE,

ATHENS, NAPLES, &c. &c.

By the MARCHIONESS OF LONDONDERRY.

8vo, with Portrait, bound, 10s. 6d.

PERSONAL NARRATIVE OF TRAVELS IN

BABYLONIA, ASSYRIA, MEDIA, AND SCYTHIA.

By the Hon. COLONEL KEPPEL (now Lord Albemarle).

Third Edition, 2 vols., post 8vo, with Portrait and Plates, 12s.

TRAVELS IN KASHMERE, &c.

By G. T. VIGNE, Esq., F.G.S. Cheaper Edition. 2 vols., 8vo, with a valuable Map, and 22 Illustrations, bound, 1*l.* 1s.

GERMANY;
ITS COURTS AND PEOPLE.

BY THE AUTHOR OF "MILDRED VERNON."

Second and Cheaper Edition. 2 vols. 8vo, 21s. bound.

"An important, yet most amusing work, throwing much and richly-coloured light on matters with which every one desires to be informed. All the courts and people of Germany are passed in vivid review before us. The account of the Austrians, Magyars, and Croats, will be found especially interesting. In many of its lighter passages the work may bear a comparison with Lady Mary Wortley Montagu's Letters."—*Morning Chronicle.*

LORD LINDSAY'S LETTERS ON THE HOLY LAND.

FOURTH EDITION, Revised and Corrected, 1 vol., post 8vo, 6s. bound.

"Lord Lindsay has felt and recorded what he saw with the wisdom of a philosopher, and the faith of an enlightened Christian."—*Quarterly Review.*

THE SPIRIT OF THE EAST.

By D. URQUHART, Esq., M.P. 2 vols., 16s.

SIR HENRY WARD'S ACCOUNT OF MEXICO, THE MINING COMPANIES, &c.

2 vols., with Plates and Maps, 21s.

THE CRESCENT AND THE CROSS;

OR,

ROMANCE AND REALITIES OF EASTERN TRAVEL.

By ELIOT WARBURTON, Esq.

NINTH AND CHEAPER EDITION, 1 vol., with numerous Illustrations, 10s. 6d. bound.

HOCHELAGA;

OR,

ENGLAND IN THE NEW WORLD.

Edited by ELIOT WARBURTON, Esq.,

Author of "The Crescent and the Cross."

FOURTH AND CHEAPER EDITION, 2 vols., post 8vo, with Illustrations, 10s. 6d. bound.

"We recommend 'Hochelaga' most heartily, in case any of our readers may as yet be unacquainted with it."—*Quarterly Review.*

LIGHTS AND SHADES OF MILITARY LIFE.

Edited by Lieut.-Gen. Sir CHARLES NAPIER, G.C.B., Commander-in-Chief in India, &c. 1 vol., 8vo, 10s. 6d. bound.

"A narrative of stirring interest, which should be in the hands of every officer in her Majesty's service."—*Globe.*

SIR JAMES ALEXANDER'S ACADIE;

OR, SEVEN YEARS' EXPLORATION IN CANADA, &c.

2 vols., post 8vo, with numerous Illustrations, 12s. bound.

"Replete with valuable information on Canada for the English settler, the English soldier, and the English Government; with various charms of adventure and description for the desultory reader."—*Morning Chronicle.*

"No other writer on Canada can compare with the gallant author of the present volumes in the variety and interest of his narrative."—*John Bull.*

STORY OF THE PENINSULAR WAR.

A COMPANION VOLUME TO MR. GLEIG'S

"STORY OF THE BATTLE OF WATERLOO."

With six Portraits and Map, 5s. bound.

"Every page of this work is fraught with undying interest. We needed such a book as this; one that could give to the rising generation of soldiers a clear notion of the events which led to the expulsion of the French from the Peninsular."—*United Service Gazette.*

LADY LISTER KAYE'S BRITISH HOMES

AND FOREIGN WANDERINGS.

2 vols., post 8vo, 10s. bound.

"Unrivalled as these volumes are, considered as portfolios of aristocratic sketches, they are not less interesting on account of the romantic history with which the sketches are interwoven."—*John Bull.*

THE NEMESIS IN CHINA;

COMPRISING A COMPLETE

HISTORY OF THE WAR IN THAT COUNTRY;

From Notes of Captain W. H. HALL, R.N.

1 vol., Plates, 6s. bound.

"Capt. Hall's narrative of the services of the *Nemesis* is full of interest, and will, we are sure, be valuable hereafter, as affording most curious materials for the history of steam navigation."—*Quarterly Review.*

"A work which will take its place beside that of Captain Cook."—*Weekly Chronicle.*

ADVENTURES OF A LADY DURING HER TRAVELS IN AFRICA.

2 vols., 10s.

POETICAL WORKS OF BARRY CORNWALL

Cheaper Edition, 6s.

ZOOLOGICAL RECREATIONS.

By W. J. BRODERIP, Esq., F.R.S.

CHEAPER EDITION, 1 vol., post 8vo, 6s. bound.

"We believe we do not exaggerate in saying that, since the publication of White's 'Natural History of Selborne,' and of the 'Introduction to Entomology,' by Kirby and Spence, no work in our language is better calculated than the 'Zoological Recreations' to fulfil the avowed aim of its author—to furnish a hand-book which may cherish or awaken a love for natural history."—*Quarterly Review.*

THE YEAR-BOOK OF THE COUNTRY

OR, THE FIELD, THE FOREST, AND THE FIRESIDE.

BY WILLIAM HOWITT; AUTHOR OF "THE BOOK OF THE SEASONS," &c.

Second and cheaper Edition. 1 volume, with Illustrations, 6s. bound.

"This book is at once welcome to read and goodly to see. It is richly, poetically, picturesquely various. We cannot doubt of its having a welcome as wide as its range of contents, and as cordial as the love of man and of nature, which every line of it breathes."—*Athenæum.*

THE WANDERER IN ITALY, SWITZERLAND, FRANCE, AND SPAIN.

By T. ADOLPHUS TROLLOPE, Esq. 1 vol., 6s. bound.

ADVENTURES OF A GREEK LADY,

The Adopted Daughter of the late Queen Caroline.

WRITTEN BY HERSELF. 2 vols., post 8vo, 12s. bound.

POPULAR WORKS OF FICTION.

MERKLAND. By the Author of "MARGARET MAITLAND." 3 v., 31s. 6d.

PASSAGES IN THE LIFE OF MRS. MARGARET MAITLAND, OF SUNNYSIDE. Written by HERSELF. New and Cheaper Edition. 1 v., 10s. 6d.

MR. WARBURTON'S REGINALD HASTINGS. Third and Cheaper Edition. 1 v., 10s. 6d.

LIGHT AND DARKNESS; OR, MYSTERIES OF LIFE. By Mrs. CROWE, Author of the "Night-Side of Nature," &c. 3 v.

NATHALIE. By JULIA KAVANAGH, Author of "Woman in France," 3 v., 15s.

FALKLAND. By Sir E. BULWER LYTTON. 1 v., 5s.

TALES OF HUNGARY. By THERESA PULSZKY 3 v., 15s.

VIOLET; OR, THE DANSEUSE. 2 v., 10s.

ANNE DYSART; OR, THE SCOTCH MINISTER'S DAUGHTER 3 v., 15s.

00038336

Digitized with financial assistance from the
Government of Maharashtra
on 15 March, 2016